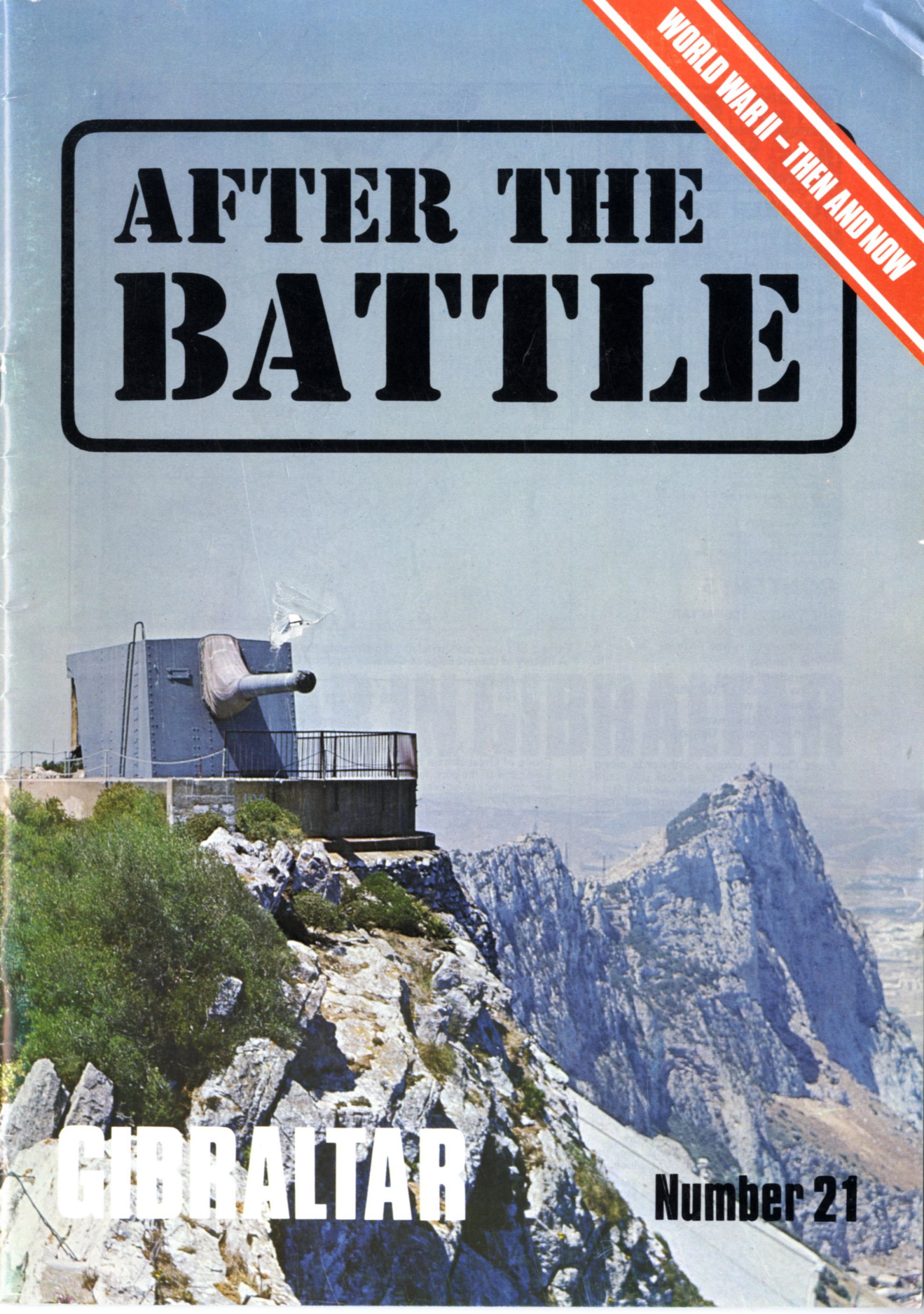
WORLD WAR II – THEN AND NOW

AFTER THE BATTLE



GIBRALTAR

Number 21

AFTER THE BATTLE

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Front Cover: Looking northwards along the eastern face of the Rock past Lord Airey's Battery and the water catchments towards Spain. Photo taken near O'Hara's Battery, 1,374ft above sea level.

Centre Pages: Gibraltar from Spain showing the airfield with the post-war extension and the harbour. The Levanter cloud, unique to Gibraltar, clings to the upper part of the Rock (Francisco Silvela).

Back Cover: The neutral ground photographed from Royal Battery.

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Construction of the Airfield from *Flying from the Rock,* an unpublished manuscript by Flight Lieutenant H. M. Elliott.

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Operation Felix based on *Germany's Military Strategy and Spain in World War II* by Charles B. Burdick published by the Syracuse University Press, New York.

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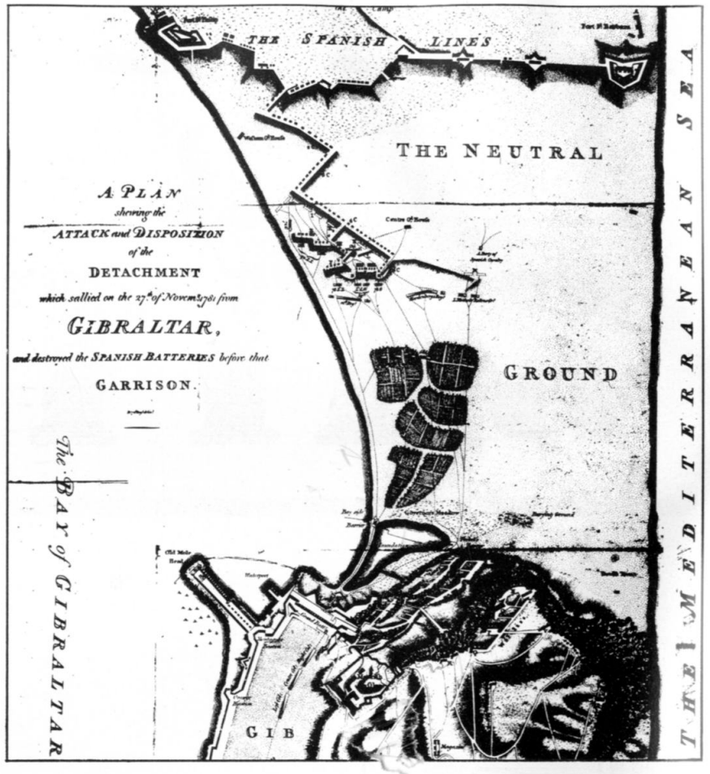


Extract of a map published in 1786 showing the original extent of the Neutral Zone (from 'A history of the late seige of Gibraltar' by John Drinkwater).

THE TREATY OF UTRECHT

ARTICLE X

The Catholic King does hereby, for himself, his heirs and successors, yield to the Crown of Great Britain the full and entire propriety of the town and castle of Gibraltar, together with the port, fortifications, and forts there-unto belonging; and he gives up the said propriety to be held and enjoyed absolutely with all manner of right forever, without any exception or impediment whatsoever.

But that abuses and frauds may be avoided by importing any kind of goods, the Catholic King wills, and takes it to be understood, that the above named propriety be yielded to Great Britain without any territorial jurisdiction, and without any open communication by land with the country round about.

Yet whereas the communication by sea with the coast of Spain may not at all times be safe or open, and thereby it may happen that the garrison, and other inhabitants of Gibraltar may be brought to great straits; and as it is the intention of the Catholic King, only that fraudulent importations of goods should, as is above said, be hindered by an inland communication, it is therefore provided that in such cases it may be lawful to purchase, for ready money, in the neighbouring territories of Spain, provisions and other things necessary for the use of the garrison, the inhabitants, and the ships which lie in the harbour. But if any goods be found imported by Gibraltar, either by way of barter for purchasing provisions, or under any other pretense, the same shall be confiscated, and complaint being made thereof, those persons who have acted contrary to the faith of this treaty, shall be severely punished.

And Her Britannic Majesty at the request of the Catholic King, does consent and agree, that no leave shall be given, under any pretense whatsoever, either to Jews or Moors, to reside or have their dwellings in the said town of Gibraltar; and that no refuge or shelter shall be allowed to any Moorish ships of war in the harbour of the said town whereby the communication between Spain and Ceuta may be obstructed, or the coasts of Spain be infested by the excursions of the Moors. But whereas treaties of friendship, and a liberty and intercourse of commerce are between the British and certain territories situated on the coast of Africa, it is always to be understood, that the British subjects cannot refuse the Moors and their ships entry into the port of Gibraltar purely upon the account of merchandising.

Her Majesty the Queen of Great Britain does further promise, that the free exercise of their religion shall be indulged to the Roman Catholic inhabitants of the aforesaid town.

And in case it shall hereafter seem meet to the Crown of Great Britain to grant, sell, or by any means to alienate therefrom the propriety of the said town of Gibraltar, it is hereby agreed, and concluded, that the preference of having the same shall always be given to the Crown of Spain before any others.

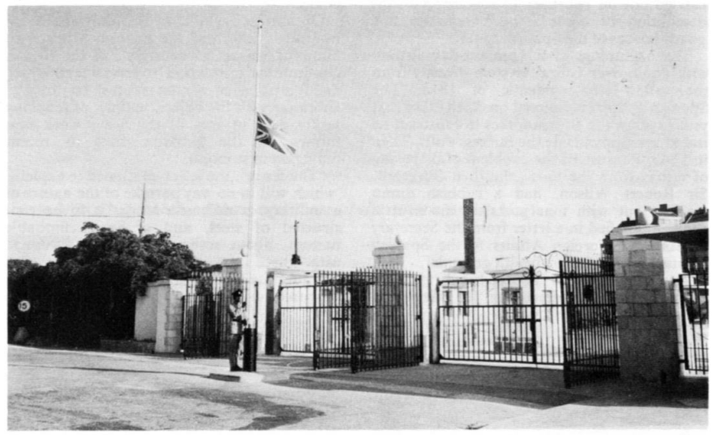
THE WAR IN GIBRALTAR

On April 27, 711, Tariq-ibn-Zayad, the Berber leader of a Moorish army, sailed from North Africa and landed on the sandy isthmus connecting a 1,300-foot mountain with the southern shore of Spain. Within a few months, the Moslem invasion of Christian Spain was complete and, in order to secure his line of communication across the 15-mile strait at the entrance to the Mediterranean sea, Tariq constructed a castle overlooking the isthmus on the north-western slope of the massive rock. This rock was named Tariq's mountain — Gibel Tariq — later to be corrupted to Gibraltar.

Four hundred and forty one years later, a town was founded below the castle which the Moslems occupied until 1309 when it was captured by a Spanish army only to be recaptured by the Moors 24 years later. Gibel Tariq remained in Moorish hands for a further 129 years until Spain finally drove out the invaders on August 29, 1462.

Once in Spanish hands, Gibraltar was enlarged and fortified until it was regarded as impregnable.

In 1700, King Charles II of Spain died without leaving an heir and the succession was disputed by two rival claimants: Prince Philip V of Bourbon, a grandson of Louis XIV backed by France and Spain, and an Austrian Hapsburg, Archduke Charles, supported by Austria, England, Holland and the Holy Roman Empire. The resulting 'War of the Spanish Succession' included a combined Anglo-Dutch attack on Gibraltar in 1704 to prevent it being used to unify the French Atlantic and Mediterranean fleets. The Vice-Admiral of England, Sir George Rooke, leading the invasion fleet, landed 1,800 British and Dutch marines on the isthmus to cut the road to the Spanish mainland while his ships bombarded the fortress. After three days, the defenders surrendered, British history books giving the date of the attack as July 21 and Spanish records as August 4.



Top: **The frontier gates at Four Corners in 1942. A Bren carrier on patrol is watched by Spanish Civil Guards (IWM).** *Above:* **The 2nd Battalion, The Royal Green Jackets, raise the flag in July 1977. Note the wartime conical road blocks on the extreme left.**

The Treaty of Utrecht, signed on July 13, 1713, brought an end to the war, Article X of the agreement confirming the yielding of the town, castle, port, fortifications and forts of Gibraltar from the King of Spain to the British Crown for ever — not that Spain gave up the attempt to recapture the Rock by both force of arms and negotiation. Unfortunately the Treaty did not provide a map defining exactly the area so described, thus giving both parties the opportunity to interpret the wording as it suited them, causing much controversy in later years.

Soon after its capture in 1704, the first of three Spanish attacks on Gibraltar was launched. The first only lasted six months and the second, in 1725, two years but, at the end of the century, the Great Seige began. The garrison held out for three years, seven months and twelve days, records stating that over 200,000 shot and shell were fired during the long defence of the Rock (September 13, 1779 — March 12, 1783). After each Spanish attempt to recapture Gibraltar failed, Great Britain's tenure was confirmed by further treaties: Seville (1721), Aix-la-Chapelle (1748) Paris (1763) and Versailles (1783).

The end of the Napoleonic Wars brought an end to the seiges and Gibraltar prospered becoming a British Crown Colony in 1830. The opening of the Suez Canal in 1869 increased Gibraltar's strategic value to the Royal Navy and the Admiralty dockyard, with its 440-acre harbour protected by three moles, was constructed on land reclaimed from the sea in 1895-1905.

On the landward side, following the treaty of Utrecht, a 1,450-metre strip of the isthmus had been declared neutral ground, (what would now be called a demilitarised zone) between the British and Spanish lines based on the range of the cannon then in use. It was this piece of flat, sandy soil that had been the battleground during the eighteenth century battles.

In 1810, the Anglo-Spanish alliance against Napoleon gave the Governor of Gibraltar the opportunity of eliminating the Spanish forts of San Felipe and Santa Barbara on the northern boundary of the neutral ground. Announcing that there was a possibility that the forts might fall into French hands, General Campbell instructed Royal Engineers to cross the zone and blow them up, a task which was duly carried out on February 14 together with the demolition of other stone banquettes and guard houses of the Spanish Lines.

The beginnings of the present-day dispute with Spain over Gibraltar stem directly from the yellow-fever epidemic of 1815. The Spanish authorities agreed on April 20 of that year to allow the British forces to construct an isolation camp outside the fortress walls. Then in 1845, because of the problem of disposing of refuse from the town, the then-Governor, Sir Robert Wilson, had a rubbish dump marked out with four posts on the neutral zone — justified in a letter from the Secretary of State for Foreign Affairs to the Spanish Minister in London on health grounds.

Another epidemic in 1854 led to more barrack huts being erected on the British end

Above: **Two more wartime obstacles lie beside the modern chain-link frontier fence topped with dannert barbed-wire. Photo taken looking towards Algeciras Bay.** *Below:* **The watchtower overlooking the eastern end of the wire which was extended into the sea in 1976 as an anti-rabies measure.**

of the neutral zone, this time protected by a line of sentry boxes. When the epidemic was over, some huts were dismantled but the sentry boxes and military camp remained to which rifle ranges were added. When, in 1862, the Governor of Gibraltar authorised a corps of French troops to camp on the neutral ground without consulting the Spanish authorities, the latter lodged a strong complaint in London. Two months later, the British Secretary of State sent the official reply. It stated that the buildings and encampment were 600 yards from the Spanish line and that the neutral ground began beyond the line of British sentries!

By 1881, the extent of British occupation of the neutral zone extended 800 metres from the rock face and the authorisation of sunshades for the Spanish sentries (still on their original 1713 line) led the British authorities to erect permanent stone bases for the British sentry boxes.

On August 5, 1908, the British Ambassador in Madrid informed the Spanish Minister of State 'as an act of courtesy', of the British Government's intention 'to erect a fence along the British edge of the neutral territory at Gibraltar with the object, mainly, of reducing sentry duty in view of the heavy work now thrown on the garrison since its recent reduction in strength.

'The fence', the letter continued to explain, 'which will in no way partake of the nature of a military or defensive work, is to be constructed of steel, and of an unclimbable pattern, about seven feet high and topped with three strands of barbed-wire, thus bringing the total height up to nine feet. It is proposed to fix netting to the fence in order to prevent the passing of articles through the bars. A gap will be left across the main road leading to Linea and gates provided across the Eastern Road and at the Western Beach, the former for cattle and the latter, which will be in full view of the guard room, for the passage of those persons in possession of Beach Passes'.

As could be expected the proposed fence, which would permanently consolidate part of the neutral ground within the British base, was opposed vigorously by the Spanish Government and an exchange of correspondence continued at official level over the next twelve months. All this time however, construction of the fence, which was claimed by HM Government to be wholly on British territory, continued until the Spanish were presented with a fait accompli.

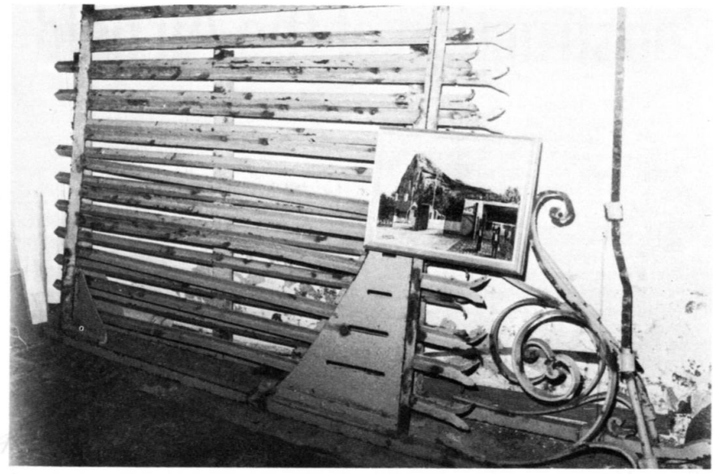
The Spanish Red Book, published in 1965 in answer to the British White Book, parallels the erection of the border fence to that constructed in Berlin by the Soviet/East German authorities. However, although the Gibraltar fence was improved during the Second World War and during the 1970s, the border always remained open at Four Corners, even throughout the Second World War, and upwards of 10,000 Spanish workers crossed daily into Gibraltar to work. (Gibraltar switched to driving on the right in 1925 to avoid an awkward cross-over at the frontier). The Red Book, whilst detailing the period up to 1909, omits any mention of the events in the years up to 1954 when reference is made to the umbrage of the Spanish people to the proposed visit of Queen Elizabeth II to Gibraltar. The royal visit took place in 1954 and, thereafter, relations between Britain and Spain deteriorated, the Spanish Consul being withdrawn on April 19 and increasing border restrictions and delays leading to final closure of the Spanish gate in the land frontier on May 20, 1968. (It could be argued that this closure was legally justifiable in the context of the second paragraph of Article X of the Treaty of Utrecht.)

During the Second World War, Spain had constructed a line of dragons teeth along their side of the neutral zone but these were blown up in 1966 and a sports complex with a stadium has now been built on what was formerly barren ground. Nearby, a tall block of flats provides a convenient observation post for the Spanish authorities.

Today, while the Spanish gates remain padlocked, the British gates, just twelve inches to the south remain symbolically open — the neutral ground having shrunk effectively to six inches! The gates were replaced by the Royal Engineers in 1972 and the original ones, which had stood during the Second War, were purchased by a Gibraltarian, Frank Aonso. If any reader would like to purchase these, Frank can be reached at 23-25 Governor's Street, Gibraltar (Phone 4028).

In July 1976, the British authorities extended the fence (which is now constructed of green, plastic-covered, chain link mesh topped with dannert barbed-wire coils), 30-40 feet into the sea at the eastern end, to make it animal proof to stop rabies, then moving south through Spain, from entering Gibraltar. Today, a twenty-man frontier platoon constantly patrols the border which is floodlit at night. Two watch towers overlook either end; some of the dare-devils that occasionally swim past the wire are quietly returned by boat, others less fortunate get a week's jail in Algeciras, The locals are allowed to shout messages to their relatives and friends a hundred yards away on the far side, many of whom carry out their loud conversations while looking through binoculars.

The closure of the border has led to a twice-daily ceremony for the changing of the guard — on both sides of the fence — providing an additional tourist spectacle. The British parade is 'low-profile' with a small guard detail and bugler to 'sound off' as the Union Jack is raised or lowered. By contrast, the Spanish ceremony is spectacular and noisy. A full band, with the musicians in combat fatigues, marches about a mile from the barracks in La Linea down the long road to the frontier. There both the band and the armed border guard stand to attention while the red and yellow flag is lowered to the strains of the Spanish National Anthem.



The old frontier gates, which stood at Four Corners during the war now in Frank Aonso's shop. Frank rescued them from the scrap heap in 1972.

The changing of the guard . . . *(above)* **Spanish-style with a full marching band and** *(below)* **with a lone British bugler.**

Construction of the Airfield

It is always intriguing to observe how modern events are influenced by the decisions or actions of individuals who lived many centuries earlier and it is fair to say that had Sir George Rooke not captured Gibraltar in 1704, it is doubtful whether General Eisenhower could have begun the African campaign which contributed so much to ending the Second World War by 1945. For it was only from Gibraltar with its airfield, that the aircraft could be provided to guard the Straits against U-Boats, assist the relief convoys to reach Malta, shoot down German bombers, escort the invasion forces and carry the paratroops to Africa and later to Southern France. If Gibraltar had not been British, no Allied aircraft could have got anywhere near the enemy.

In 1876, General Lord Napier of Magdala, who had just become Governor, destroyed a number of farms which existed on the neutral zone to supply fruit and vegetables for the garrison as he believed that they were sources of infection. In their place he began to layout gardens which were carried over a large portion of the area with trees, flower beds, lawns and walks which were patriotically named Victoria Gardens. This was a harmless amenity to which the Spanish, then more friendly than they had ever been, could raise no objection. The gardens flourished quickly in the warm climate, sustained by water from a well which was found on the ground and, before long, they gave the military the idea of making a racecourse so that they could do something more exciting with their horses than merely exercise them back and forth. Again Spanish co-operation was sought and was quickly forthcoming, for the province of Andalusia, which adjoins Gibraltar, is full of men who breed and love horses and are fine riders. The racecourse was built, spicy competition was provided by the horses entered by the landowners, ranchers and soldiers of southern Spain and for the first time since 1704, there was friendship between the local representatives of the two countries.

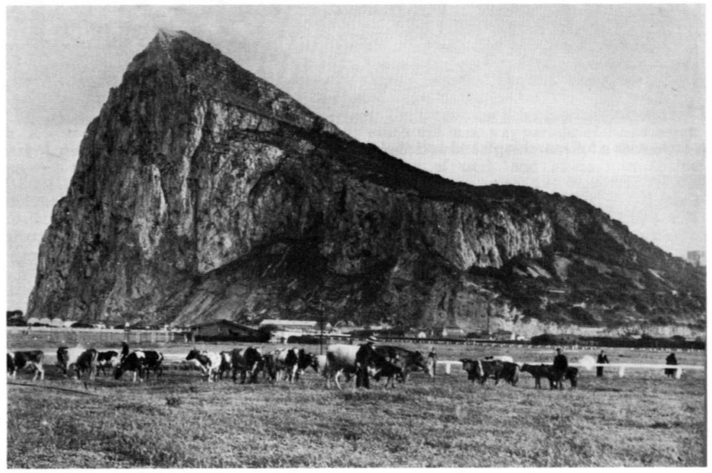
By 1914, North Front (as the whole area from the Rock to the frontier fence was called) had become accepted as a British 'possession' and both Spanish and English moved freely between the entertainments provided by the Gibraltar Jockey Club and the other hunting, riding and picnicing areas near San Roque and Algeciras in Spain.

During the First World War, some experiments with primitive seaplanes were carried out from the harbour but attempts to use the racecourse as a landing ground were stopped by the Spanish authorities after three months when a BE crashed on their side of the fence. Although this effectively put an end to further efforts to fly from North Front, somewhere in the background, far-sighted persons were considering how to use Gibraltar as an airfield for service aircraft.

In the 1920s, the Governor and his opposite number at Algeciras formulated a joint plan for an Anglo-Spanish airfield on the Spanish side of the fence, where it would not interfere with the racecourse and other Gibraltar amenities. It was not approved by London or Madrid. There in 1931, a local aircraft company was given permission to use the racecourse as an airfield in their service between Gibraltar and Tangier, a popular spot for the service and civilian inhabitants of the Rock spending leave and holidays. The company was called Gibraltar Airways Ltd, and it began its service towards the end of 1931 but was compelled by maintenance and repair difficulties to close down after only three and a half months.

Early in 1932, an instruction reached Gibraltar which began a long and confused discussion, and much opposition, before it finally brought an end to the racecourse and produced in its place the modern North Front airfield as it is today. The instruction came to General Godley, the Governor, from the War Office in the form of a secret memorandum issued by the Committee of Imperial Defence in which it recommended that plans should be worked out for the establishment at short notice of an airfield at Gibraltar. The matter appeared to have a certain urgency as Mussolini's activities in Abyssinia were causing some concern. Accordingly, General Godley summoned a meeting of the heads of the services in Gibraltar at Government House on February 18, 1932.

There was little argument and the meeting unanimously decided that a landing ground at Gibraltar for service aircraft was essential. On



Above: **A peaceful farmland setting with the racecourse in the background — this was the southern area of the Neutral Zone as it appeared in the 1920s.** *Right:* **The incredible contrast by Christmas 1942 — eight weeks after Operation Torch. Early morning traffic can be seen crossing the airfield occupied by aircraft of fourteen different types.**

Photograph of North Front as it appeared on May 7, 1940. The race track is clearly seen with the 'prepared strip' which preceded the runway proper, running across the course. This strip ended at the Spanish Road. Note the aircraft parked near the trees at the side of the road and the defences on the Spanish part of the neutral ground.

the subject of a suitable site, the racecourse area at North Front was declared to be the only acceptable one. Windmill Hill, at the south-eastern end of the Rock, was considered as an alternative, but was quickly rejected, as was a suggestion to establish a floating airfield, like the deck of a carrier, at Europa Point. Army representatives suggested that the use of a landing ground at North Front would prejudice weapon training as that was the only area where such training could be carried out. The meeting agreed that such structural alterations as might be necessary to the firing points and other range facilities could be carried out without detriment to weapon training.

On May 12, 1932, the Governor reported to the Under Secretary of State for War, and placed the decisions and opinions before him. The Governor presented a sketch plan and stated that the estimated cost was £573 including £210 for the re-erection elsewhere of the groundsman's quarters.

When the proposed plan was submitted to the Colonial Office for their views, the latter expressed doubt as to the international validity of the affair stating that the Spanish had always claimed that the neutral ground extended right up to the foot of the Rock. The Governor's reply was terse and to the point: I am strongly of the opinion that it would be a great mistake to open up any discussion on this point and, in any case, I would hesitate to express any opinion on the matter without very careful research. There is much old correspondence on the subject in the archives of the Secretariat and elsewhere and as opportunity offers this is being collected and carefully examined. For the present it would appear to be sufficient to state that our length of tenure of the area in question gives HM Government the strongest claims.

On May 2, 1933, the opinion of General Godley was endorsed in London and officially approved, construction work beginning on September 3, 1934.

One of the early problems had now to be faced by the Commander, Royal Engineer as the rails, posts and starting gates of the racecourse would have to be made removable by inserting them in sockets, allowing the aircraft room to land but so that the full facilities for horse racing would not be affected. Then, when it became known that an 'emergency' landing ground for service aircraft was being arranged, other interests began to consider the possibility of renewing the civil air traffic at Gibraltar. Early in 1934, Sir Alan Cobham came to Gibraltar to make a survey and report on an air route to Tangier for passengers, goods and mail. He had flown from the Rock in 1927. However the Governor's view was that 'Gibraltar is faced with the hard physical fact of lack of ground, and the one and only site for a landing ground is that in the centre of the racecourse where is also situated the garrison musketry range. Greatly as I should like to see civil aviation established here, there are many objections from a military point of view to the racecourse site being used as a regular aircraft ground. During the weapon training season this area is in constant use by both the Army and Navy and it is considered that the arrival and departure of aircraft constitute a hindrance'. The civil scheme did not survive that objection.

Throughout the negotiations, every opportunity had been taken to emphasise that the airfield was to be an emergency one. The Army did not wish to give support to any proposal that North Front should become a permanent airfield, involving the sacrifice of its training ground and sport to the third arm of warfare, unless for an incontrovertible reason. It was pointed out that the North Front ground was in constant use both for weapon training and recreation, and it was emphasised that the welfare of the garrison would suffer if such use was often interrupted.

The compromise suggested by the new Governor, General Harrington, was that pilots should be informed that the racecourse could be made available as an emergency landing ground; that a week's notice to Fortress Headquarters was required and that, as the ground was in constant use for training and recreation, they should be warned to use it only in an emergency.

The Navy, on the other hand, wanted the landing ground to be more readily available and, following an inspection by the Fleet Aviation Officer in February 1936, Admiral Sir Roger Backhouse, C-in-C Home Fleet, requested that the firing trenches be covered with boarding flush with the ground, certain concrete posts removed, some holes filled in and stones removed. 'I propose, with Your Excellency's concurrence,' the Admiral wrote to the Governor, 'to issue an order warning pilots that, should a forced landing be necessary at North Front, they are to bear in mind that there may be men working there or in the firing trenches, that cattle may be grazing and people exercising horses. I suggest that Fortress Headquarters be warned that a pilot forced to land will do so as nearly as possible in the centre of the racecourse.

There could be no argument against this. Details were discussed by Fortress and Home Fleet Staff Officers and, as a result, Fortress Headquarters made the necessary 'permanent' preparations suggested by the Admiral, and issued a warning that aircraft were to be expected. By March 10, 1936, the 'emergency landing ground', was fully available for the first time.

The first evidence of a scheme for a full-size airfield at North Front came from the Secretary of State for the Colonies, Mr. W. Ormsby-Gore, MP, who wrote to General Harrington on October 1, 1936 and asked his views on a proposed air base at Gibraltar partly on an area reclaimed from the sea. On November 2, Mr Ormsby-Gore telegraphed the Governor that the law officers of the Crown had given a 'qualified' opinion to the effect that there would be no objection to taking initial steps to carry out the project pending objection by the Spanish Government. The Air Ministry was pressing for immediate authority to proceed and the Cabinet was going to discuss the matter on November 4. A summary of the Governor's views was therefore requested by telegraph.

General Harrington, who had already discussed the entire matter with Sir Samuel Hoare, First Lord of the Admiralty, during his visit to Gibraltar in October, agreed that an air base was essential and that all other interests should be subordinated to it and the various difficulties met at all costs.

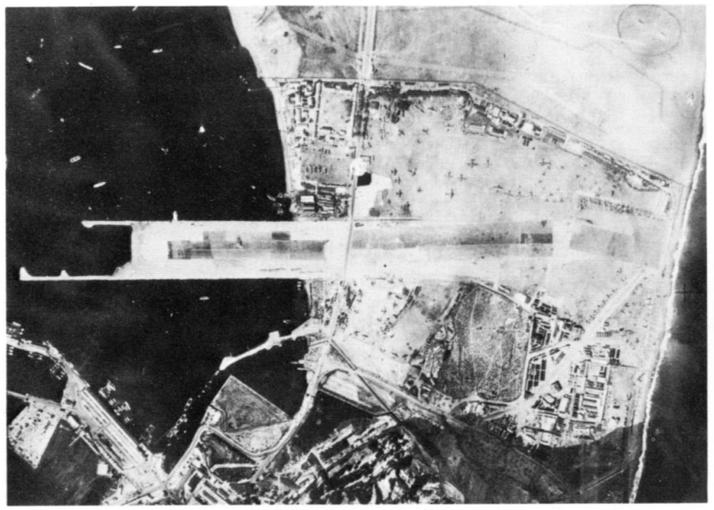
Mr. Ormsby-Gore wrote again, on November 26, stating that the Government had decided that, although the provision of an air base at Gibraltar was essential for the needs of Imperial Defence, they had reached the conclusion that the risks of alienating Spain and of creating international complications and difficulties by taking action at the present time to reclaim the land required for an airfield are of such gravity as to outweigh any advantages to be derived from immediate action. They had therefore decided that the Secretary of State for Air should follow up certain possibilities of an emergency alternative concerned with the construction of a windbreak wall, 1100 yards long, 50 feet high and 12 feet broad, from east to west across the British sphere of the neutral ground, and the levelling and keeping clear of all obstacles of a strip 150 yards wide on each side of the wall, which would be a steel framework covered with slats. It would run from Gibraltar Bay (Western Beach) to Blackstrap Bay (Eastern Beach) practically through the centre of the racecourse and the scheme would cost £35,500. However following a personal inspection visit by Air Marshal Sir Philip Joubert de la Ferte (AOC-in-C Coastal Command), he reported that the wall scheme had not been examined by any practical flying expert and that he would much prefer no wall at all.

The Air Ministry's answer was to revive the idea of reclaiming an area 1000 yards by 800 yards from the sea on the western side of the isthmus. However within four months of the scheme being proposed, the Governor unofficially learned that General Franco's Government were already aware of the proposal and that, if work was begun without consulting them, the Spanish reply would be to fortify the neighbourhood. The Foreign Office comment on the Governor's information was forthright: 'As far as Mr Eden is aware ' the reply said, 'it was never contemplated that General Franco's Administration should be consulted on this subject. Unless, therefore, the fortification of the neighbourhood of Gibraltar represents a serious threat to the safety of that Colony, a matter on which Mr Eden is not competent to advise, he does not consider it necessary to make any notification to the Salamanca authorities.'

Nevertheless, matters were left in abeyance until General Harrington was succeeded by General Sir Edmund Ironside in November 1938 when it was agreed that the Spanish Nationalist Government should be informed of the proposed developments on the lines that the plan was nothing new, but that steps were being taken to perfect an already existing emergency landing ground; that when the improvements were completed, however, it would follow that the ground would be more extensively used, and that Fleet Air Arm units from visiting carriers would use it for training purposes.

One feature about the reclamation that was perfectly clear was that it would mean the abolition of Gibraltar's only shipbuilding yard, Messrs Blands as well as some subsidiary firms. Following his visit to Gibraltar in February 1939, Air Vice-Marshal Sir Richard Peirse, Deputy Chief of the Air Staff, wrote privately to General Ironside to assure him that if he found alternative sites for Blands and the other works, and for his army barracks, it was unlikely that they would be interfered with by any expansion of Air Ministry or Admiralty airfield requirements. However, as the scheme unfolded, the problem of what to do with Bland's works

An early stage in the construction of the new runway which had crossed the Spanish Road by April 7, 1942 when this picture was taken. The 'prepared strip' is still evident and apparently in use. All that remains of the racecourse is the feint outline at the bottom of the picture.



Great progress has been made with the extension of the new runway into the sea in preparation for Operation Torch. The border guiding lines and the centre circle are all that remain of the prepared strip.

became an acute one for the Governor. On April 6, 1939, General Ironside wrote to the War Office and asked approval to leave Bland's works in their present position until the reclamation was proceeded with. The only deleterious effect of that would be to narrow the landing strip from 300 to 150 yards at the western portion.

By now the Spanish were watching North Front carefully and beginning to make public comments. This was one of the first problems to be faced by General Ironside's successor, Lieutenant-General Sir Clive Liddell, An article appeared in Franco's newspaper *Arriba* in August, 1939, which concluded: 'A few days ago, in one of our editorials, we expressed the hope that for the sake of good relations between Spain and Britain the old dispute about Gibraltar would now be settled. Today we have to confess that the attitude expressed by England in establishing this military airfield eighty metres from our lines is not the best way to arrive at an understanding or to confirm an expressed desire for friendship, particularly if these military defence works are going to be built on land over which we have today, as always, unquestionable right of sovreignty.'

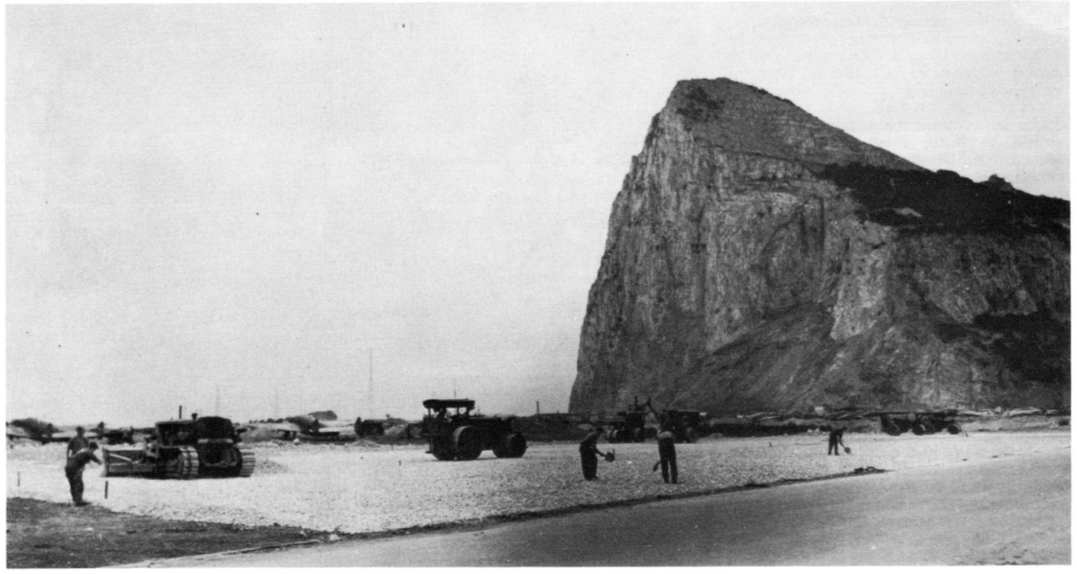
General Liddell sent the newspaper report to the War Office. 'The local situation, now that the Spanish war is over,' he wrote, 'is rapidly becoming worse.' The Spanish had begun to build defences in their portion of the 'neutral' ground and had increased the guard at the frontier. 'I have reached the conclusion,' General Liddell went on, 'that until His Majesty's Government establish a friendly basis of discussion on the matter, if no more, the series of pin-pricks to which Gibraltar is subjected will increase and that friendly relations with Spain will be difficult, if not impossible of achievement.' General Liddell pointed out that before coming to Gibraltar he had been instructed to do all in his power to establish friendly relations with Spain. He asked for early information as to the Government's policy in the matter.

When war began the situation so far as operations were concerned worked out very much as had been anticipated. There were no aircraft at North Front as the anti-aircraft practice flying was being done by three Swordfish of No. 3 Anti-Aircraft Co-operation Unit from RAF Malta which were fitted with floats. The only other aircraft at Gibraltar were three French float-planes. A few days after September 3, 1939, the Royal Air Force arrived at Gibraltar from Malta and formed No. 200 Group with Headquarters in the Bristol Hotel and began to operate flying boats of No. 202 Squadron from the harbour.

However, far as North Front was concerned, the need for an efficient operational airfield for the Royal Navy and RAF had now become a matter of urgency and, on September 30, Group Captain F. E. P. Barrington, who commanded No. 200 Group under the direction of the AOC Mediterranean Command, reported to the AOC that half the 'prepared strip' would not be available under six months and that the other half could never become available until the garrison huts were vacated. 'It is now clear,' he said 'that no sanction has been given for the construction of anything more than an emergency landing ground without hangar or workshop accommodation, and the Spanish authorities have been told that the present construction is solely for that purpose. Further it is unlikely that the Foreign Office will consent to an alteration of policy. It is apparent that even when this landing strip is completed it cannot be used for any other purpose than as an emergency landing ground and that until such time as the political situation vis-a-vis Spain changes completely the suggestion to operate land aircraft from Gibraltar is impracticable'.

The Rear Admiral Commanding North Atlantic, Rear Admiral Dudley B. N. North was the next to make himself heard when he recalled in a letter to Admiralty the sea-reclamation scheme for a runway and a naval seaplane slipway and pointed out that they could both be constructed from material being

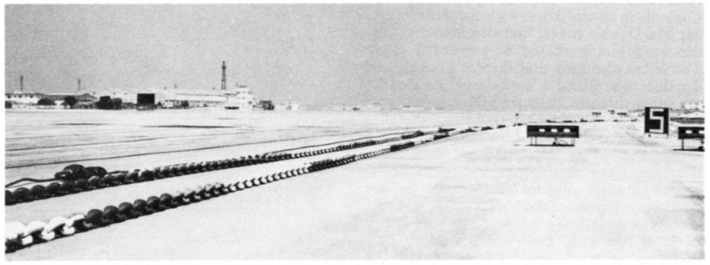
Below: **Surfacing the parking area to the east side of the road to Spain (IWM).** *Right:* **Military transport crossing the airfield in 1977.**



tunnelled out of the Rock, but that a decision would have to be made soon otherwise the material would be dumped into the sea.

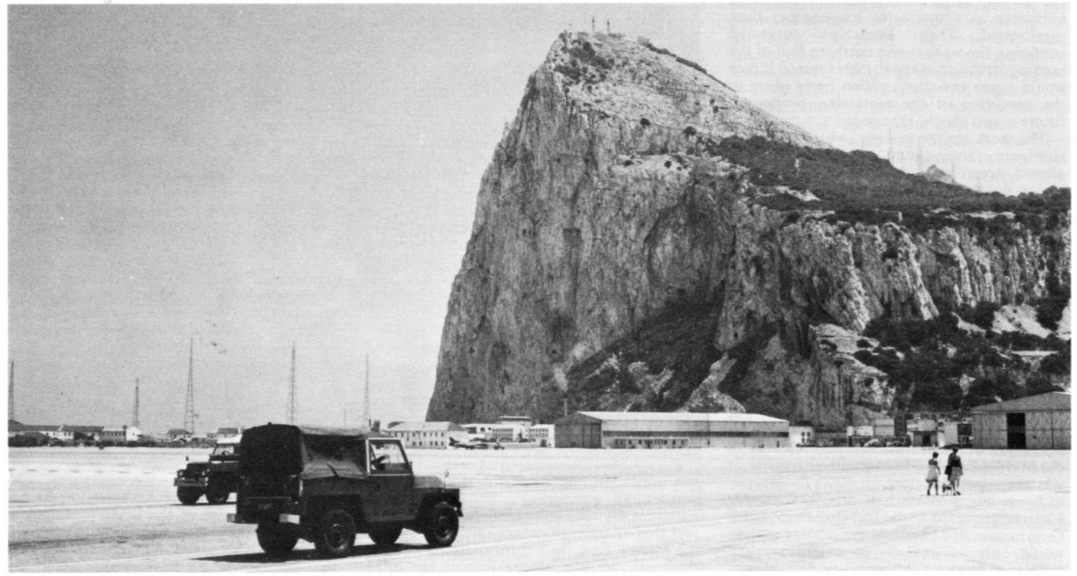
The result of these discussions became apparent on December 4, 1939, when the Governor received a copy of a secret despatch from the Foreign Office to the British Ambassador at Madrid, Sir Maurice Peterson. It was accompanied by a letter from Mr Malcolm MacDonald to General Liddell in which the Colonial Secretary made the surprising statement that an aide-memoire handed to the Duke of Alba, Spanish Ambassador in London on April 25, 1939, had said the improvements to the landing ground would not affect the general uses to which it was put and that it would remain primarily an emergency landing ground which would also be available for the periodical training of disembarked aircraft of the Fleet Air Arm. 'It is not proposed,' the letter stated 'to seek the assent of the Spanish Government for the use of the landing ground for the purposes in view and, although it is not the intention of His Majesty's Government to employ the landing ground for operational purposes, it is not considered desirable to

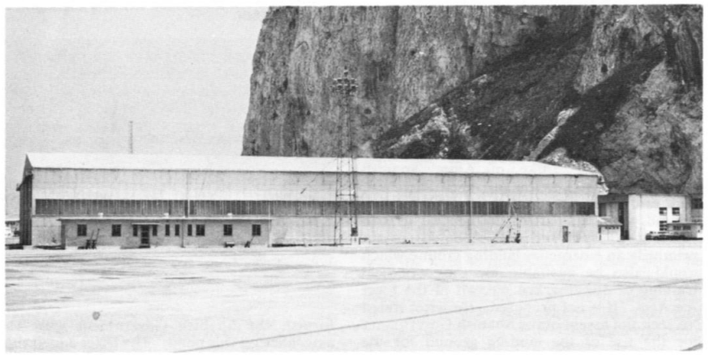
Above: **The 'crusher' in action making hardcore from rock blasted from the scree. The butts of the Army ranges can just be seen in the background (IWM).** *Below:* **The smooth expanse of the airfield in July 1977 — the chains are part of the runway emergency arrester gear.**



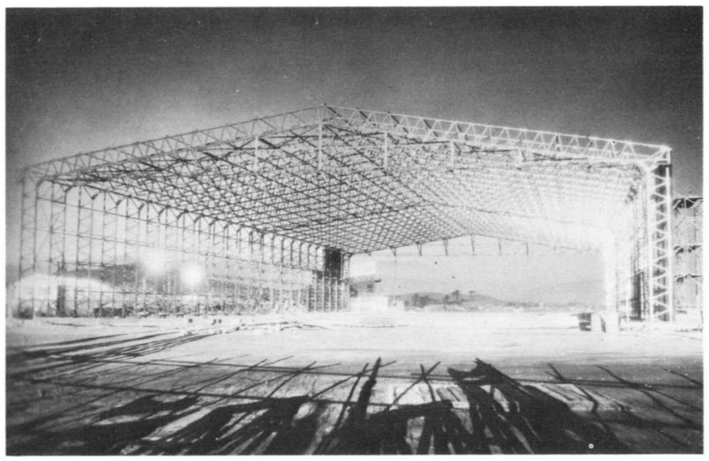
furnish the Spanish Government with any assurance on this point.' The letter added that the Government were advised that they were on sure ground from the legal point of view. They were not willing to compromise their position by seeking an agreement with the Spanish Government which, for tactical reasons, would most certainly be refused.

On November, 21, 1939, the Governor received the first definite information that the main reclamation scheme had been abandoned. This news was contained in a letter





Top: **October 1942. Spitfires Vcs (tropicals) parked close by the scree which is being used for the extension of the runway (IWM).** *Above:* **Our present-day comparison — the T2 hangar is shown under construction in 1944** *(below)* **under the glare of searchlights.**



from Mr MacDonald which referred to General Ironside's letter of April 6: 'The Air Council, in consultation with the Admiralty,' Mr MacDonald wrote, 'have decided that only the landing strip should be proceeded with.' The letter also said that the Air Council had decided that Bland's works must be moved, an inconsistency that the Governor found hard to understand. It referred to the fact that in view of the creation of an airfield at North Front the Army establishment had been decreased, and made certain suggestions for an alternative site for the works by the demolition of part of the barracks.

A greater surprise followed. A War Office cable of March 7, 1940, said: 'Possible only northern strip of landing ground may be required. Postpone work on southern pending decision.' This was the result, it turned out, of a letter sent by the Admiralty to the Air Council on March 4, 1940, in which it was stated that the Fleet Air Arm requirements in Gibraltar had been reconsidered in the light of recent events and their Lordships 'now regard the full implementation of their proposals at Gibraltar as a matter of less urgency than previously.' Their Lordships suggested confining the work to the northern half of the landing strip and asked the Air Council if they would agree to 'consideration being given to the execution of the remaining projects if future events should require it.'

The work on the runway, which had been continuing throughout all this time, was altered accordingly and, when it was completed the RAF and Fleet Air Arm were able to use it operationally with fair success, although it was scarcely adequate for the Lockheed Hudsons and the Wellingtons which the RAF brought out later and was responsible for many crashes.

The extension to the runway appeared to have been forgotten in London and no more was heard of it until March 1941 when the new Governor, General Lord Gort, received a copy of a letter written by one of the private secretaries on behalf of Mr Winston Churchill to Sir Samuel Hoare, the British Ambassador at Madrid. It pointed out that since the arrival of the Germans in Sicily, the risk of interception of British aircraft on their way to the Middle East had been greatly increased. It was proposed, therefore, to make the journey with an intermediate halt at Gibraltar. Mr Churchill referred to the fact that the Spanish Government had been told the landing ground would only be used in an emergency and proceeded to give a characteristic definition of the word. 'In one sense the war itself constitutes an emergency', he wrote. 'In a narrower sense an emergency is created by the fact that aeroplanes cannot safely fly direct to the Middle East. In a third sense landings of these aircraft will not be regular but intermittent.' In these circumstances, Mr Churchill informed the Ambassador, he had agreed to the use of the landing ground on condition that no violation of Spanish territorial rights would in practice be involved, that landings would be intermittent and that so far as possible the aircraft would arrive 'singly and unostentatiously.' The letter concluded, 'I am satisfied that if the Spanish Government object it can be plausibly represented that the use of the landing ground is compatible with the assurances that have been given to them I do not consider that it is necessary or desirable to consult the Spanish authorities or to inform them of what is proposed.'

By April 6, the first of the transit aircraft had arrived — Wellingtons and Bombays — and successful tests had been carried out for take-off from North Front with full load. To improve the service and remove certain obstacles, the new OC No. 200 Group, Group Captain A. D. Rogers, asked for Army assistance pending the arrival of an RAF detachment from the UK. The request was put through the Vice Admiral at Gibraltar, Rear Admiral G. F. B. Edward-Collins, who approved and suggested an Inter-Services Committee to discuss the matter. This committee was formed and met on numerous occasions, with the result that many problems were solved satisfactorily and harmoniously. This committee took the important decision, after consultation with London to increase the width of the runway and create a new extension westwards at an angle to the original strip. This meant the abolition of three recreation grounds but was a big improvement in efficiency. The extension formed a V towards the south-west with the existing strip and was actually the foundation or beginning of the present runway.

Lord Gort was enthusiastic about the new plan and gave many details his personal attention. The work went ahead at satisfactory speed. A quick method of building the runway was evolved with the use of broken stone rolled, then cold sprayed with an emulsion of bitumen. A certain amount of extension into the sea just above high water mark was necessary but nothing ambitious was envisaged. It was with something of a shock, therefore, that the Inter-Services Committee received an order from Air Ministry on October 27, 1941, that the new runway was to be extended to a final length of 1,550 yards and have a width of 150 yards.

Lord Gort's reply said, 'It would appear to be a major engineering feat'. The Governor explained in a cable to the War Office that it entailed half-a-million tons of filling and building the runway over 500 yards into the sea without any lea to protect construction work. It might take two years. He concluded, 'As any such project must effect essential work for the defence of the Fortress and involve my personal responsibilities I presume the whole question has been examined on the highest level'. The War Office replied: 'Matter has been on high level'.

On November 3, the Governor sent to the War Office his plans and estimates for the work. The runway extension would have a freeboard of 6 feet 6 inches above high water and 400,000 cubic yards of filling would be required. He suggested the work be given to a firm which specialised in harbour works of that type and magnitude.

The new scheme alarmed the British Ambassador at Madrid. He cabled Lord Gort, that 'to embark on foundation of so extensive a plan will raise most embarrassing questions with Spanish authorities. A discreet and strictly limited reclamation might improve landing ground without either embroiling us with Spanish Government or taking many months or possibly years to complete'.

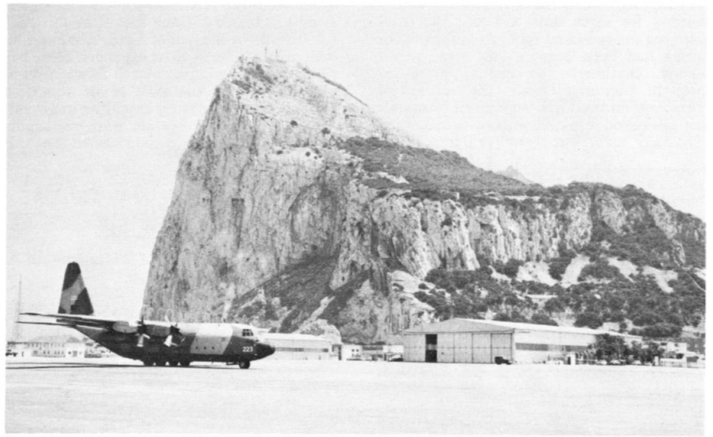
Nevertheless, the scheme went ahead and with it the erection of a Royal Air Force Station at North Front. When details were worked out accurately it became apparent that the extension over the sea would be exactly 570 yards. The work was beyond any of the resources of Gibraltar, but it was urgent as the United States had joined in the voices from high quarters. North Front would be required as a necessary insurance in the US Air Ferry Service from West Africa to the United Kingdom for the arrival of the first US bombers to assist in the bombing of Germany. No trouble would be too much. Lord Gort was promised labour and plant from Britain within three months and certain plant from America. Meantime, the completion of the original strip to a maximum length and efficiency became a work of the first priority.

There was dismay when it was realised that the road from Spain could not be diverted and would be required to cross the extended runway. This would mean some 7,000 neutrals walking more or less across the centre of the runway twice a day on their way to work in Gibraltar. It was too much to hope that the skill and vigilance of the security authorities would prevent the infiltration of enemy sympathisers and even of agents. It was an unheard of situation; but there was no alternative. The only safeguard was to extend the system of Security Defence begun in Gibraltar at the time of the Abyssinian war and to apply it with an intensity unknown at home.

The work was inspected by the AOC-in-C Coastal Command, Air Chief Marshal Sir Philip Joubert de la Ferte, towards the end of November 1941. He expressed the view that the project being in any case a major one it was worth considering, as a final answer, an extension of half-a-mile seaward so as to provide a runway with a total length of 1,800 yards. That would involve the demolition of Bland's works which successive Governors had sought to preserve. This suggestion was approved by the Air Council in December but as a long term policy. The immediate task, finally decided at a meeting in London on December 16, 1941, was to extend the runway to 1,550 yards. Work could then begin on the further extension provided that the runway could be used with freedom at all times.

Preliminary work was begun a few days later and started in real earnest when the first of the plant and personnel arrived from Britain. Construction units and their fearsome equipment made life at North Front hideous with dust and noise. Twice a day, the southern part of the airfield was evacuated up to the edge of the runway to enable the blasting of rock from the scree, which was the name for the north-eastern face of the Rock. Stones and rubble were blasted from the Rock and dug from tunnels at a phenomenal number of tons daily and thrown into the sea to form the foundation of the extended runway. The extension began to reach out into Algeciras Bay with impressive rapidity but except to the few senior officers who knew the Very Secret reason for the energetic drive to get the job done, the progress seemed slow. Elsewhere there was equally intensive activity. Men working like ants obliterated all trace of the precious racecourse and its lovely surroundings. Buildings sprang up everywhere. The political and other objections that seemed so important in the 1930s vanished, as the intensive work had begun, almost in a night.

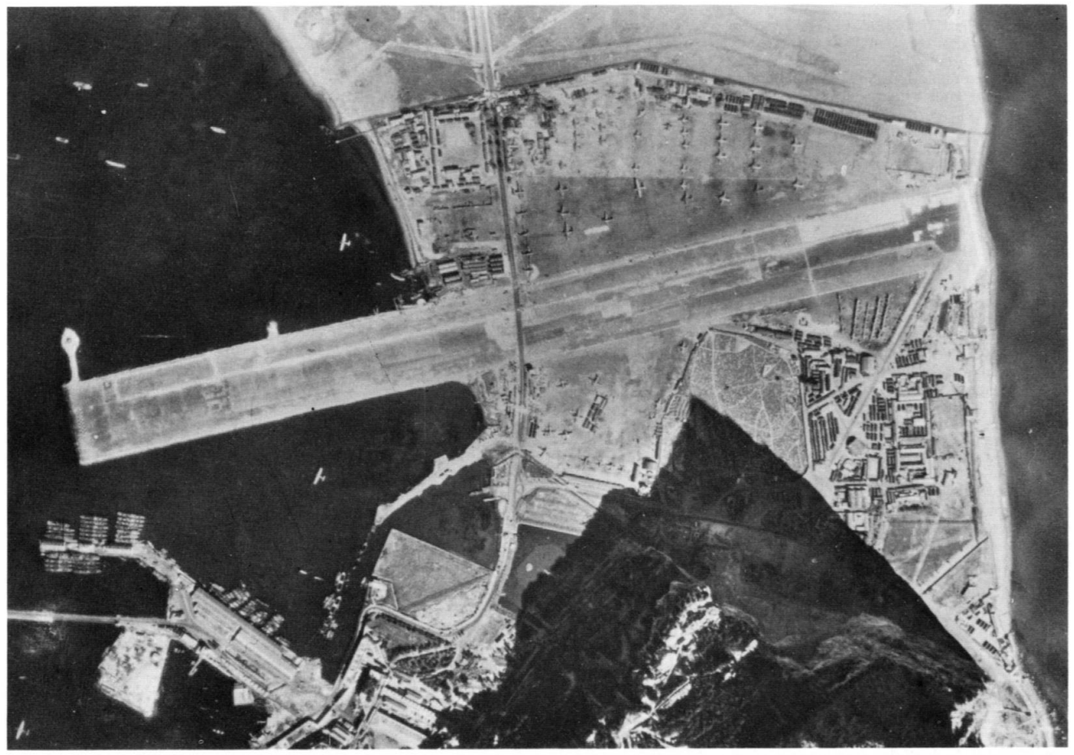
Above: **Raising clouds of dust, a Hudson leaves the dispersal prior to a reconnaissance flight in August 1942 (IWM).** *Below:* **An RAF Hercules takes off in July 1977.**



Lord Gort was a tireless director of the work. Early every morning, he went to North Front and walked round the construction gangs encouraging them and starting a competitive spirit by telling each one that it was lagging behind the others. Work went on all day for seven days a week. The trucks carrying the spoil and rocks from the quarries which had been begun at the scree were in almost continuous procession; those that brought material from the tunnellings elsewhere on the Rock were given 30 minutes for the round trip and worked to time-table. The daily 'carry' was about 7,500 tons.

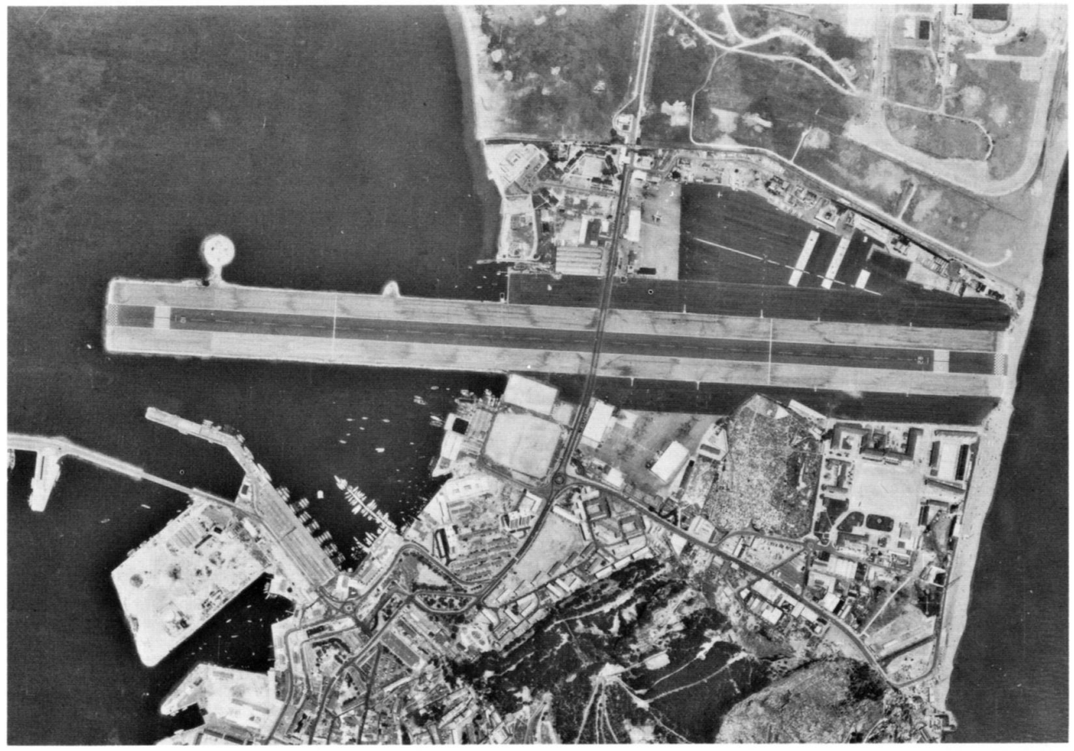
Warplanes on the Rock. *Left:* **A B-17 Fortress at readiness beneath the low Levanter cloud (IWM).** *Above:* **Hunters at the ready in 1977.** *Below:* **Dakotas, Hudsons, Halifaxs, Hurricanes and Spitfires, for the invasion of southern France in July 1944.**

On January 12, 1942, the runway had been extended to 985 yards and an undertaking was given to the Air Council that it would reach 1,150 yards by the end of April. A request for even greater energy to be expended came in a signal from London on March 24 when it was pointed out that the scale of air attack on Malta was causing heavy casualties to aircraft reinforcing to the Middle East and India which had to make a stop there. The Air Ministry was arranging to strip Wellingtons as far as possible so that they could fly from Britain to Gibraltar and thence direct to Egypt. It would mean taking-off from North Front with a very heavy load of petrol and that would be quite impossible until the runway had been extended to at least 1,150 yards. 'Request all energies on immediate work' said the signal 'at the expense if necessary of preparing the remaining distance'. A new



Above: **The airfield photographed by the RAF on November 16, 1943 from 7,000ft (Crown Copyright).**

Below: **Comparison of the same area taken for the Directorate of Overseas Surveys on June 16, 1969 from 8,200ft.**



estimate of the date when the 1,150 yards extension would be completed was requested.

Lord Gort replied at once: 'Within ten days' He then made a personal inspection of the work, had a talk with the technical officers and civilian experts, and cabled: 'Possibly 3rd April. Certainly 7th April.' He redoubled his efforts to encourage the workers and then drove his staffs until they reminded each other that he once had the nickname 'Tiger Gort'. On April 1 he sent a signal to the Chief of the Imperial General Staff guaranteeing completion by the evening of April 3, twenty-seven days earlier than the original estimate, — one of the great constructional achievements of the war. The CIGS replied: 'Please convey my congratulations to all concerned.'

After that the tempo slackened a little, but not much, for the 1,550 yards extension had to be completed for a much more important operation, one about which few people at that time had any information, OPERATION TORCH, the Allied landings in North Africa. When this operation took place in November, the runway was just under 1,550 yards long. In January 1943, the extension 'frame' to 1,800 yards had been completed and the runway was ready for use to its full length in July. By that time, nothing whatever remained of the Victoria Gardens and the racecourse, a transformation which the majority of the civilian population did not witness because they had been evacuated from the Rock for the duration of hostilities.

Above: **North Front photographed at the end of the war. Both hangars have been completed — the control tower is still located in the old starter's box from the racecourse behind the left-hand T2 (IWM).** *Below:* **Today the old historic control tower has disappeared to be replaced by the new building on the far side of the runway. Except for the huge block of flats, the Spanish neutral ground remains largely undeveloped.**

The above account was prepared in 1945 by Flight Lieutenant H. M. Elliott of the Intelligence Section at RAF Gibraltar as part of his unpublished manuscript 'Flying from the Rock'. Through Squardron Leader W. J. Howard at Gibraltar, we discovered during our visit to the Rock in May 1977 that Flight Lieutenant P. C. Dyer had produced fifty-five facsimilie copies as part of his own research into the aviation history of Gibraltar, and the editor is indebted to all three officers for being able to include this comprehensive account of the construction of the North Front airfield. Discovery of this manuscript was extremely fortunate as the official files on the construction of the airfield, dating back to 1923, have recently been withdrawn from the Public Record Office by the Foreign Office. Most probably this is because of the current argument with Spain over the validity of the British constructions on the neutral zone. Flight Lieutenant Dyer would be glad to hear from anyone who has interesting recollections of flying at Gibraltar as he is collecting material for his own proposed book on Gibraltar aviation. Write to him at RAF St. Athan, Nr. Barry, S. Glamorgan, Wales.

The most famous crash to occur at Gibraltar during the war was that on July 4, 1943, of Liberator AL523 carrying General Sikorski — covered in After the Battle No. 20.

After the war, a further 200 yards was added to the western extension to the runway, easily identifiable as the portion beyond the circular radar mole. The T2 hangars, added in 1944, still stand although the old watch office, which had been converted from the racecourse starter's box on the southern side of the runway, has now been demolished and a modern tower erected as an extension to the Air Headquarters building on the opposite side.

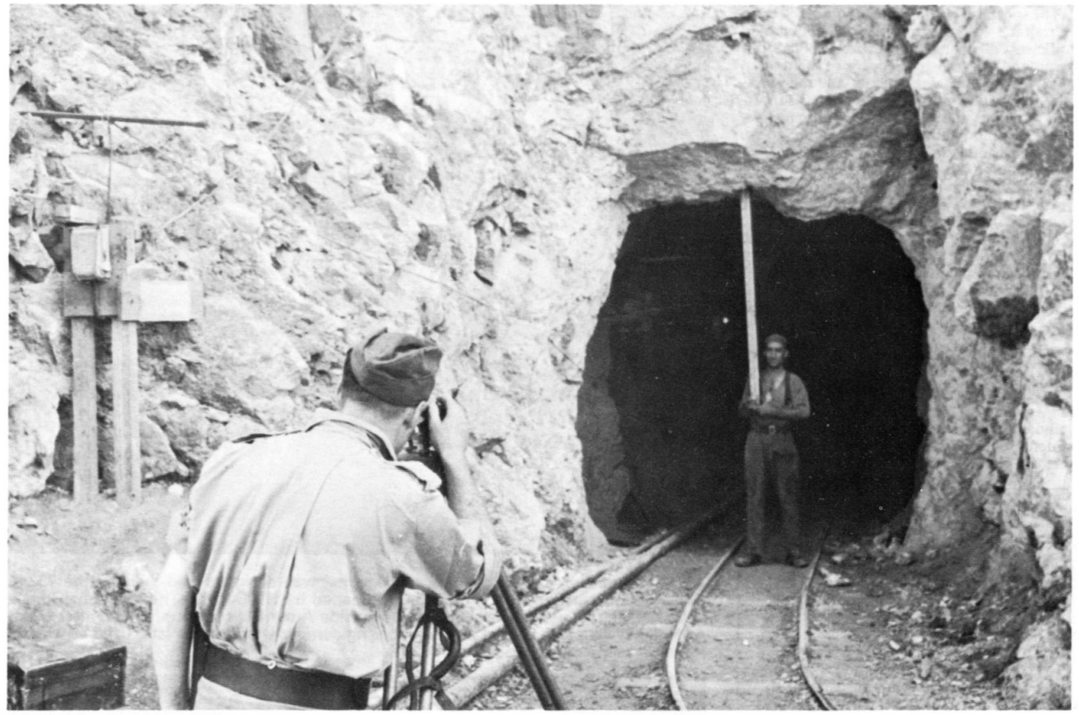
Spanish restrictions to the airspace around Gibraltar began in January 1966 when member countries of NATO were informed that any of their aircraft would not be allowed to fly over Spanish Territory if bound for Gibraltar. In August, the ban was extended to apply to all British military aircraft and was followed in September and October by a number of complaints about alleged violations of Spanish airspace north of the frontier fence.

A line of buoys, extending southwards across Algeciras Bay from Punta Mala now visibly marks the limit of Spanish waters and aircraft landing from west to east are required to approach from the south and make a very steep turn to line up on the runway. In fact most jet aircraft are forced to land off their curved approach and no straight-line Instrument Landing System radar is possible from this direction, a measure of control being effected by a circular sweep radar. Approaches from the west are more normal and can be monitored by ILS although an additional hazard to aircraft landing from this direction is the Spanish TV mast, erected in 1970, close by the frontier fence.

The huge mass of Gibraltar can create some unusual weather phenomenon, one being caused by a southerly wind which is split by the Rock giving air currents from both ends of the runway at the same time. The unique result is that the two windsocks at either end of the airfield point towards each other! On other occasions, an easterly wind hitting the sheer face of the Rock and being forced upwards, condenses to form the Levanter — a banner cloud that clings to the summit and streams a mile or so to the leeward. This peculiar cloud keeps the western side of Gibraltar in a humid shade until the sun travels far enough west to warm the town and so evaporate the cloud.

By 1973, the cumulative swing in the magnetic variation at Gibraltar added up to a full degree, necessitating the runway designation being changed from 10/28 to 09/27. The most recent alteration to the runway was in the winter of 1976 when it was re-surfaced with a new camber added to aid drainage.

The road to the frontier still crosses the runway and is controlled by traffic lights from the control tower. Its original name was Inundation Road, later just referred to as the Road to Spain, but now renamed Winston Churchill Avenue.



The Tunnels

Above: **Royal Engineers, working outside the southern entrance to Arow Street tunnel on the eastern side of Gibraltar, being visited by the Duke of Gloucester in April 1942 (IWM).** *Below:* **Arow Street was the wartime location of wireless and instrument workshops but is now closed off as being unsafe.**

The airfield, as we have seen, could not have been extended to cater for the fully-laden high-performance aircraft of WW2 had it not been for the availability of vast quantities of rubble mined during the construction of the tunnels within the Rock itself.

The techniques used at Gibraltar during the Second World War are described in the following detailed extract from *Tunnels and Tunnelling* by C. A. Pequignot.

Tunnelling has a long history in Gibraltar, dating from the eighteenth century. During the great siege of Gibraltar, Sergeant-Major Ince of the Corps of Sappers (later the Royal Engineers) immortalized his name in the Corps by constructing some defence galleries in the north face of the rock, facing towards Spain. These galleries are now known as the Upper Galleries and Middle Galleries and consist of main communication tunnels 7ft wide x 8ft high with embrasures and firing points at various intervals in the rock face. Cannons could be fired from these points and later they were adapted for modern weapons.

In more recent times, extensive tunnelling has been undertaken and undoubtedly the greatest, single British military tunnelling project carried out by army personnel is the tunnelling at Gibraltar during the 1939-45 war, when diamond-drill blasting was used by the army for the first time.

For this work, tunnelling companies were formed, mainly from coal miners and soft-rock miners and, from 1941 to 1943, four companies were in operation on the Rock together with a Canadian tunnelling company with a diamond-drill detachment. From 1943 to 1945, one company remained to continue the work.

Gibraltar rock is a bedded limestone accumulated on fairly shallow banks. It is hard and of reasonable uniformity, although there are faults and variations which, in tunnelling, had to be taken into account. Areas of shattered and broken rock had to be avoided but it was the general uniformity which made possible accurate cutting of chambers by diamond-drill blasting as described below.

The purpose of the tunnelling project in Gibraltar was to provide accommodation sufficient to enable its garrison to live underground and resist a siege for a period of up to a year. Such accommodation, therefore, had to include provision for water supply, electric light and power, sanitary arrangements, hospital and laundry in addition to the normal accommodation of personnel.

In planning this accommodation, particular attention had to be paid to the following, bearing in mind the rock formation and the unusual contours:

(1) The type of chamber best suited to the conditions.
(2) Communication.
(3) Services required.
(4) Protection of the system from blast in the event of explosion near the entrances.

TYPES OF CHAMBER

In Gibraltar, chambers were cut to allow the erection of buildings which were either standard army hutting or buildings constructed of concrete block walls and normal roof trusses.

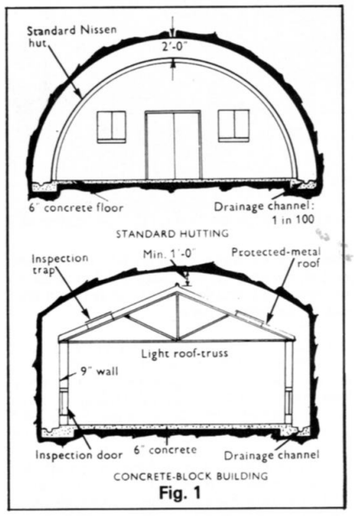


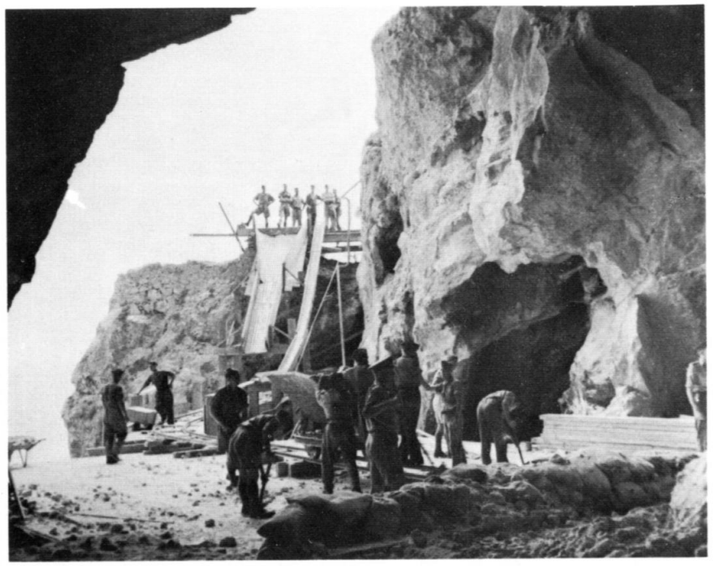
Fig. 1

In all chambers two feet of clear air space all round the building was allowed. (Fig. 1) This space was essential so that water seeping through the rock could drain away through the drainage channels provided; it also permitted air circulation around the buildings, and facilitated periodic inspection of the rock face.

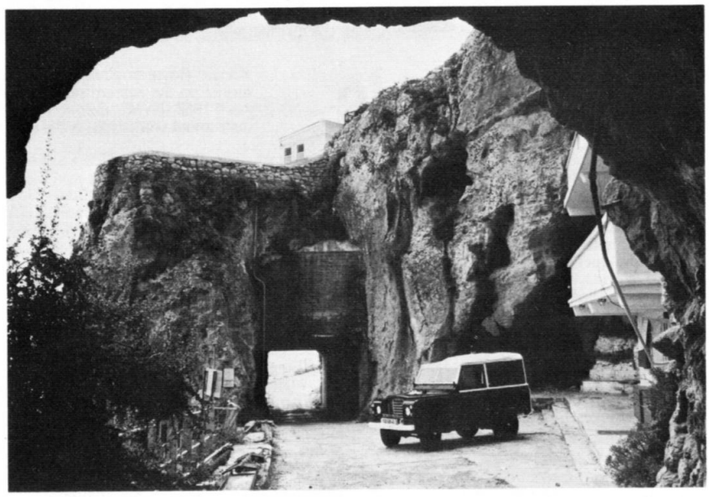
Every chamber having a span of more than 12ft was arched, the rise being one fifth of the span. In the early days, spans up to 35ft had been cut with flat roofs, but these gave endless trouble from rock falls, particularly when further excavations were being carried out in the vicinity. One of the largest chambers, 380ft long x 50ft span, was given an 11ft rise of arch and was very successful.

In planning economically, the aim was to reduce the access tunnelling to the minimum. Chambers leading directly off the main tunnel, (Fig. 2), were generally used, with a passing bay provided to avoid congestion or, even better, with a service tunnel (Fig. 3).

The chambers were generally 28ft to 40ft span, and 150ft to 200ft long, and in every case were connected at their ends by a small section tunnel called a 'back drive'. Such connection was essential to allow for the circulation of air, and to assist in keeping the chambers fresh. Cul-de-sac chambers would be damp and almost unusable for any purpose.



Above: **Monkey's Cave Convalescent Hospital was designed and built by the 732nd General Construction Company, RE and opened by HE General The Viscount Gort in 1942 (IWM).** *Below:* **It was situated just outside Arow St. entrance (named after Major A. R. O. Williams, in charge of the tunnelling company) and it was later used as a Royal Naval Armament Depot but is now disused.**



Chambers were also cut parallel to the main tunnel (Fig. 4) as this assisted the internal planning considerably by avoiding long passages but occupied long frontages of the main tunnels and was wasteful.

A pillar of rock, 20ft to 30ft wide was allowed between each chamber and, where one system was being developed above another, a clear rock space of 100ft between the two systems was considered the minimum safe thickness. Small communication tunnels, however, up to 12ft span, were crossed with only 18ft between the roof of the lower tunnel and the floor of the higher. In planning the tunnelling, it had to be remembered that it would be difficult to provide future extensions in the immediate vicinity, because the subsequent blasting would have damaged the chambers already fitted out. It was essential, therefore, to make full provision at the start, even though some of the chambers could not be fitted out at once.

COMMUNICATIONS

Communication tunnels required careful planning to avoid waste. In the early days, the tunnel system was developed from the old galleries of Sergeant-Major Ince and were of 7ft-square section for pedestrian use only. The need to get lorries through soon became apparent and, in later development, the section was increased to 8ft square and then to 15ft by 13ft with passing bays provided every 100 yards. Groups of chambers formed various 'systems' in the rock — for accommodation, stores, laundry, etc. — and all these systems were interconnected by the communication tunnels. This was an essential part of the layout and the only exceptions were independent systems built for high explosive storage, oil storage and salt and fresh-water reservoirs. All these tunnels were cut to a minimum gradient of 1 in 100 to facilitate drainage and assist in spoil removal and for

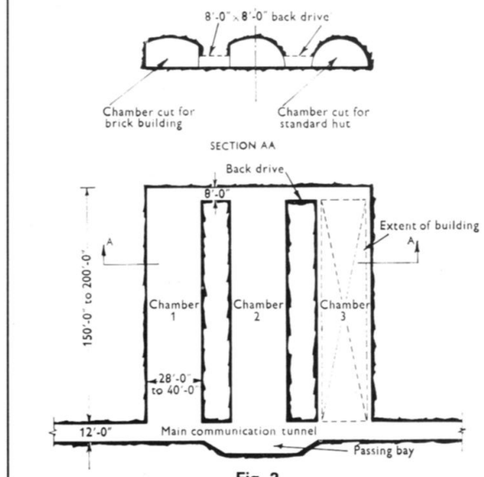


Fig. 2

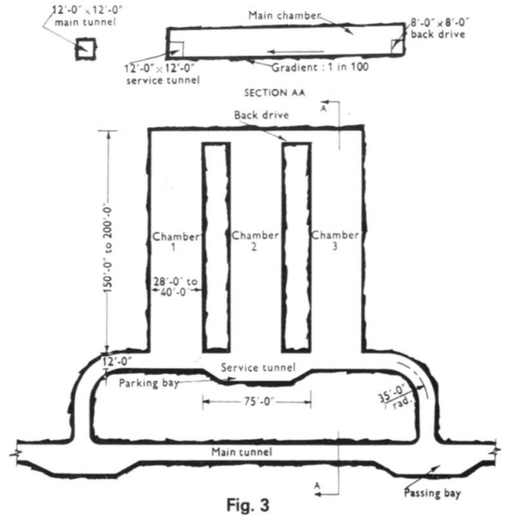


Fig. 3

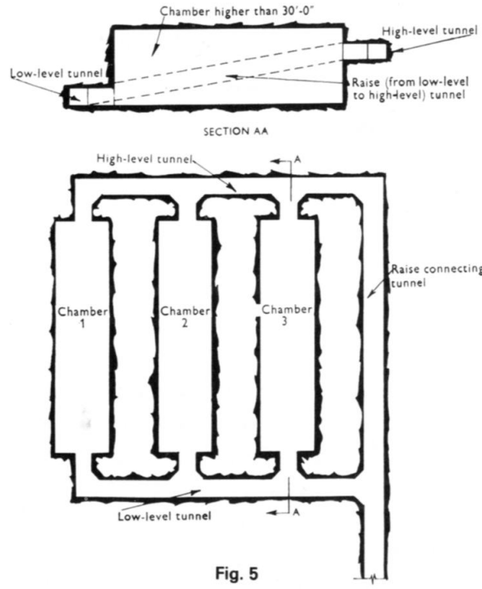


Fig. 5

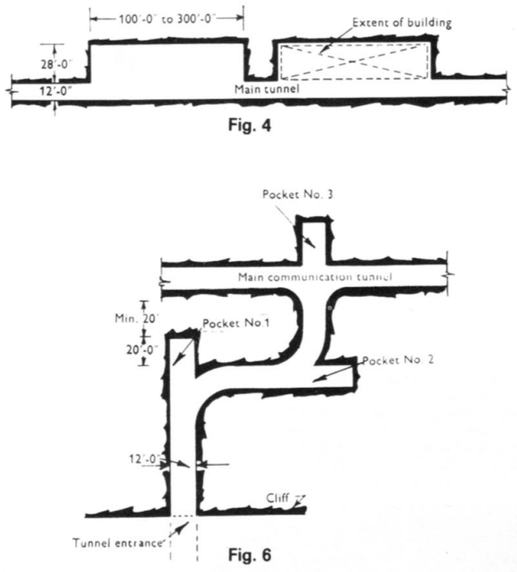


Fig. 6

vehicular tunnels, the maximum gradient was 1 in 8.

In the planning stages, construction tunnels had also to be considered. In developing high chambers for special purposes, it was sometimes necessary to have a high level system of construction tunnels, by which the upper part of the chamber was cut first, (Fig. 5).

SERVICES

It was most important to consider all the services in the initial planning Water, oil, and drainage pipes, and electricity cables all had to be run through the main tunnels, and provision had to be made for them. For all except drainage pipes, which had to go in the floor, various methods were used. The fixing of the pipes and cables to concrete brackets on the wall was not very satisfactory for the vehicular tunnels, although it presented no difficulty in the pedestrian tunnels. In some tunnels, a floor duct was cut through the centre of the tunnel and, in the wider tunnels, a raised footpath was formed with the duct below.

Ventilation ducts needed special consideration and, when large systems were being served, the ducting became very big. In one large system developed on the Rock, a separate ventilation tunnel was cut above the main chambers, with short shafts leading down to the roof for the provision of extract ventilation.

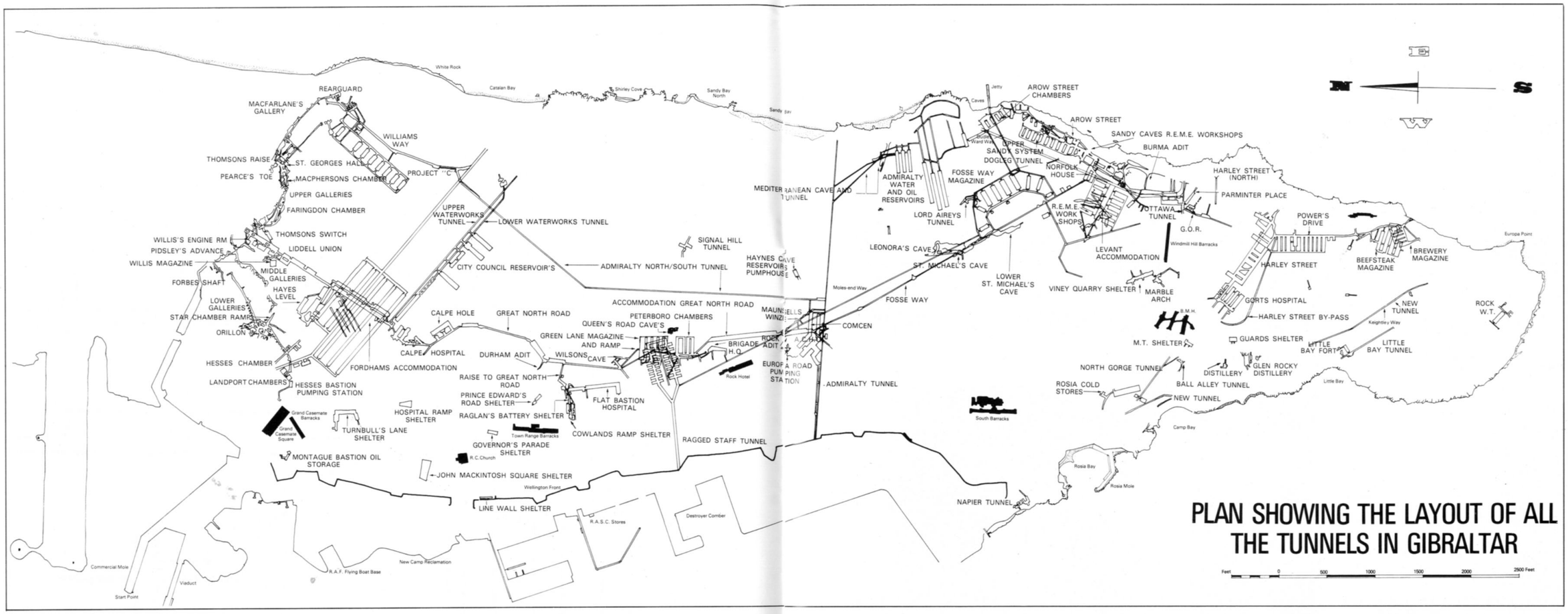
PROTECTION FROM BLAST

The exterior entrances of all the tunnels had to be protected against blast and heat flash. The early layouts took no account of this — the atom bomb was not known then — but later, two types of blast trap were devised. Pedestrian blast traps were provided in the smaller tunnels by constructing three blast walls over-lapping at least three quarters of the gap allowed for the passage of traffic, allowance being made in special cases for stretchers and other equipment to be passed through. At the main entrances, vehicular blast traps consisted of three blast pockets, (Fig. 6). The pockets, which absorbed and reflected the blast wave, required a depth at least equal to their width, and preferably twice their width. Gas-locks were also provided for the headquarters and accommodation systems.

METHODS OF MINING

The bulk of the mining was carried out by normal drilling and blasting methods, diamond-drill blasting being used for the large chambers.

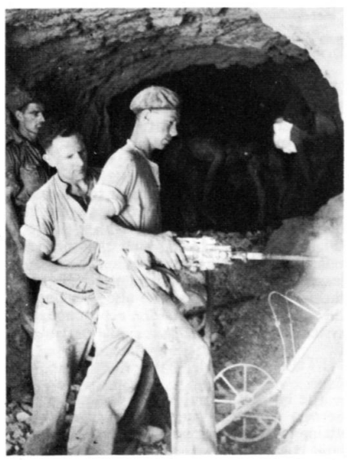
Although the Canadians used drifters, the



PLAN SHOWING THE LAYOUT OF ALL THE TUNNELS IN GIBRALTAR

Feet 0 500 1000 1500 2000 2500 Feet

British companies, for normal drilling, used almost exclusively the Holman S.L.9 Handrill. Dry drilling was used and, although this is normally considered bad practice as some rock dust is harmful to the miners, X-ray tests showed the Gibraltar limestone to be quite safe for such method.



Engineers dry-drilling blasting holes (IWM).

Originally drill steels and later ⅞ in-diameter rip rods, from 3ft 6in to 12ft in length and 1½ in-diameter rip bits were employed, each bit drilling a total of 300ft. The drills were hand held, but could be fixed to a special jackleg for drilling up-holes.

Standard rounds (i.e. a complete drilled section for the explosives) were devised for the 8ft x 8ft pedestrian tunnel, the 12ft x 12ft and 15ft x 13ft vehicular tunnel, and the 28ft span chamber for a 24ft Nissen hut, (Figs. 7-10). The 8ft-square pedestrian tunnel had a pyramid cut and required four drillers operating two machines at the face, the advance per round per eight hour shift being 4ft. The 12ft-square tunnel had a wedge cut and required six drillers and three machines advancing 5ft per shift, a scaffolding being required for the drilling of the upper holes. The larger, rectangular tunnel was cut in two operations, the initial tunnel being 15ft wide by 8ft high and the miners worked off the spoil heap to drill the upper holes. The dropping of the back was a separate operation, the spoil once again being used for the drilling platform. The advance of the initial tunnel was 5ft per shift and, in dropping the back, three 8ft rounds were drilled and blasted giving 24ft per shift.

The chambers for the 24ft-span Nissen hut were cut by first driving a standard 15ft x 8ft tunnel. The back was then blasted down drilling off the spoil heap and finally the sides were blasted. An advance of 8ft per shift was obtained for the last two operations.

The ventilation in the tunnels was natural, but air had to be pumped to the mining face via compressed-air-driven Meco type CF 3 12in.-diameter fans through 11in.-diameter rubberized canvas ducting. In headings up to 200ft in length, one fan blowing air into the face was sufficient; for longer lengths up to 1,800ft, two fans placed 100-200ft back from the face were used to remove foul air from the heading whilst a third fan blew fresh air in. Fans needed frequent cleaning and reserve fans were necessary.

The spoil was removed by Eimco Finlay compressed-air-driven shovels, which operated on decauville track and were run into the spoil heap, thus filling the shovel, which was then thrown up and back, ejecting the load of spoil into a standard one cubic yard tipping wagon. These loaders were operated on gradients up to 1 in 18 and above that gradient, the Holman scraper loader was used, adapted with a winch at the rear to haul the wagons up and down the slope. The scraper could operate up to gradients of 1 in 7.

The spoil was hauled out of the tunnels either by manpower, or by a 20ft Hudson Diesel loco fitted with exhaust conditioners, and deposited in spoil boxes from which the lorries were loaded. The boxes were capable of holding 240 tons and were constructed in timber with steel sheet lining.

Compressed air to operate the machines was provided by main surface stations of about six compressors, giving a total output of 2,000 to 3,000 cu.ft/min. Victaulic air-lines led into the tunnels and ample receivers were provided.

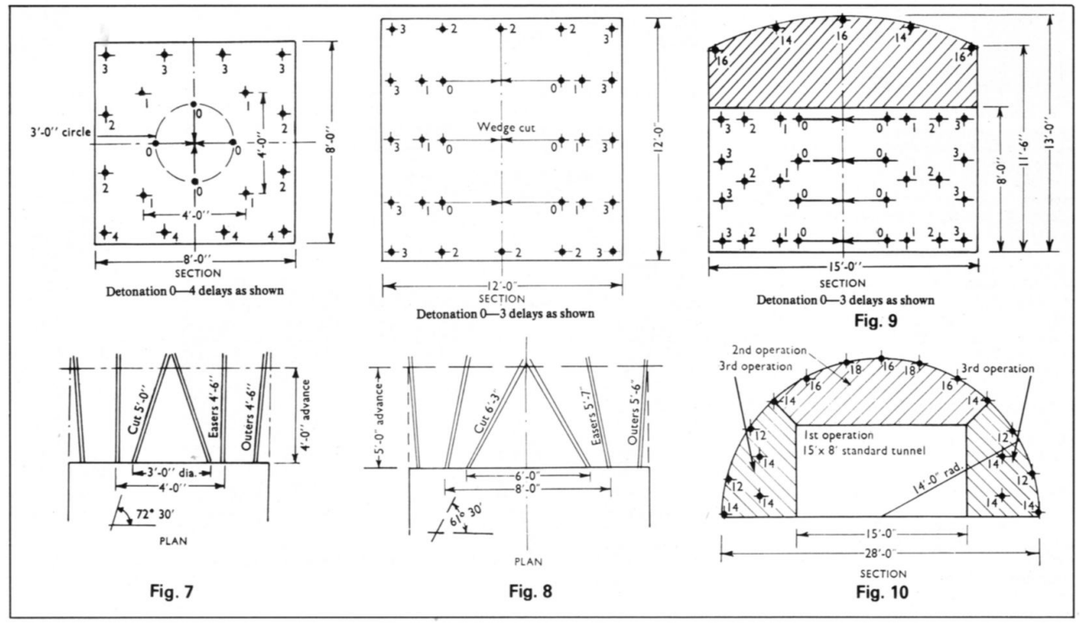
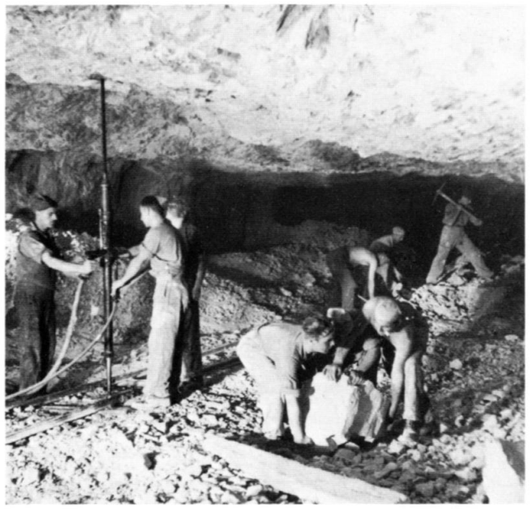


Fig. 9

Fig. 7

Fig. 8

Fig. 10



Engineers use a water pressure drill to drive the up-holes to blast down the roof (IWM).

Preparing the gelignite charges ready to be inserted in the holes drilled in the rock.

DIAMOND-DRILL BLASTING

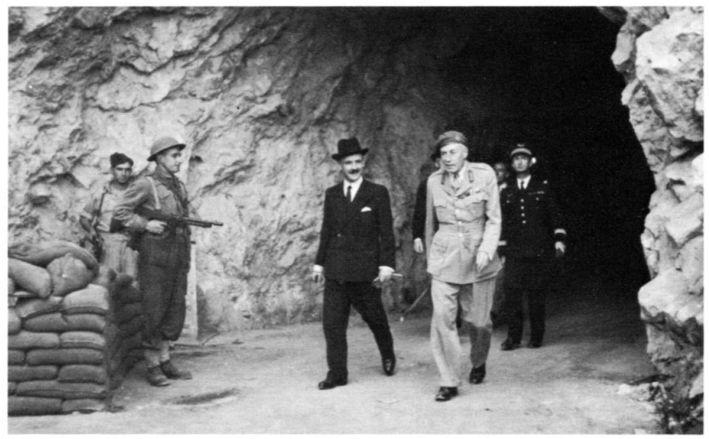
The blast-hole diamond drilling was carried out with Boyles Model BBJV with JV swivelhead drill. This machine drilled holes 1½ in. diameter and 140ft in length. Originally the drill bits were set with 9 carats of industrial diamonds, i.e. about 60-70 stones, and each bit drilled 270ft. Later some tungsten carbide splinters, set in a disc of metal alloy were used experimentally and promised good results. The normal 'E' rods in five and ten foot lengths were employed, as well as two foot 'Speed' rods, the latter screwing direct on to a special feed screw, and not requiring a chuck. A water pump giving 100 gallons per hour was required for the drilling.

Diamond-drill blasting was used for very large chambers — and these chambers were cut in one of two methods:

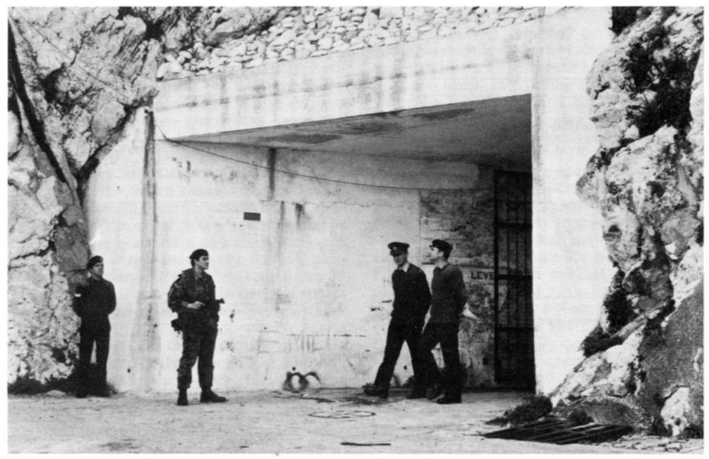
(1) Undercut the chamber to the full width and then drop the back in successive stages.
(2) Cut the central portion of the chamber to full height and then slash in the side.

In method (1) the undercut was carried out by normal methods, and was so designed that when the back was dropped the miners could stand on the spoil to bar down the roof. This was easily calculated, allowing 25 per cent increase in volume for the back (against the normal 40 per cent) as diamond-drill blasting brings down large boulders. When the undercut had been completed, slots were cut upwards at each end of the chamber, using Handrills mounted on jacklegs, the miners working off simple platforms. These slots were cut 2ft wider all round than the finished chamber size to give the diamond drill machines room to work. If the chamber was more than 140ft long, a central slot was also cut. The diamond drill machines, mounted on columns, were operated from these slots, the outer row of holes following the profile of the chamber. In chambers up to 140ft long, the drilling was done from one slot and the other slot was used for inspection; in longer chambers drilling took place in both directions from the centre slot.

The uniform nature of the rock made accurate drilling possible and good results were obtained. In cutting chambers to take standard buildings, some accuracy was required, and any hole which was more than 9in. off line was re-driven. In drilling holes



Lieutenant G. W. Dallison photographed General Mason-MacFarlane leaving Hays Level tunnel with the Resident General of French Morocco M. Puaux on October 17, 1943 (IWM). Thirty-four years later, Norman Cumming of the Gibraltar Tourist Board kindly took this excellent comparison for us at the same entrance.



100ft long, a rise of 1 in 200 was given and for holes 130ft long, a rise of 1 in 125, to counteract the sag.

On completion of the drilling, the holes were washed out and loaded with specially made rigid cartridges of 50 per cent gelignite, 2ft 6in. long in 1½ in. and 1¼ in. diameter tubes. No. 0 (instantaneous) detonators were used and the charges primed both ends and fired electrically. Tonnages blasted were 4,000 to 10,000 using about 0.6lb of explosive per cubic yard of rock.

The diamond-drill blasting produced large boulders, and to remove the spoil 10 and 19 cubic foot excavators were used in tunnels loading direct into the lorries.

FITTING OUT

The chambers as cut in the tunnels were not suitable for accommodation or stores without some form of lining. It was found better to erect light buildings inside the rock with a clear space of at least two feet all round than to line and waterproof the rock walls themselves. The space between the walls of the building and the rock allowed ample room for a man to move freely and, in large buildings, inspection doors were provided in the walls and roof to provide access for regular inspections of the rock walls and roof.

In the damp conditions in the tunnels, corrugated iron had a very limited life and tests showed that asbestos cement sheets would also be attacked by the water seeping out of the rock. Accordingly, bitumen-protected corrugated sheeting was used for all buildings.

Standard army hutting was used for accommodation huts and normal storage, concrete block ends being provided in preference to the standard wooden ends. Special buildings, such as the hospital, laundry, power stations and stores for wireless and radar, were constructed with concrete block walls and corrugated-iron roof, and this type of construction gave satisfactory results.

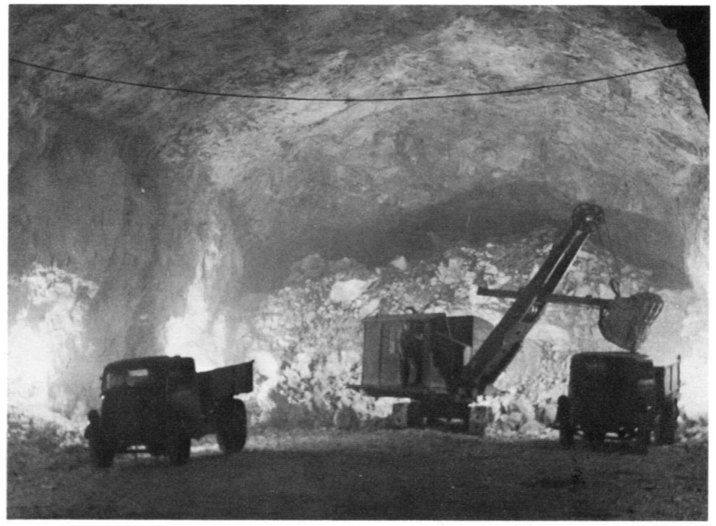
One of the greatest problems in fitting out and using the tunnels was the dampness and high humidity. The ventilation of the tunnels was natural when first cut and was satisfactory in all systems when not fully occupied. For full manning conditions, however, living accommodation was served by orthodox ventilation and gas-filtration systems, and for this purpose, air was provided at the rate of 12.5 cu. ft/min per man for normal ventilation and 2.5 cu. ft/min per man for gas filtered air.

As the general humidity in the tunnels was 90-95 per cent and in some cases 98 per cent, condensation and dampness therefore occurred on all systems and had to be accepted for the living accommodation. Special buildings were heated by electricity and this proved quite satisfactory in keeping the buildings dry but for buildings such as a hospital, full air conditioning had to be provided.

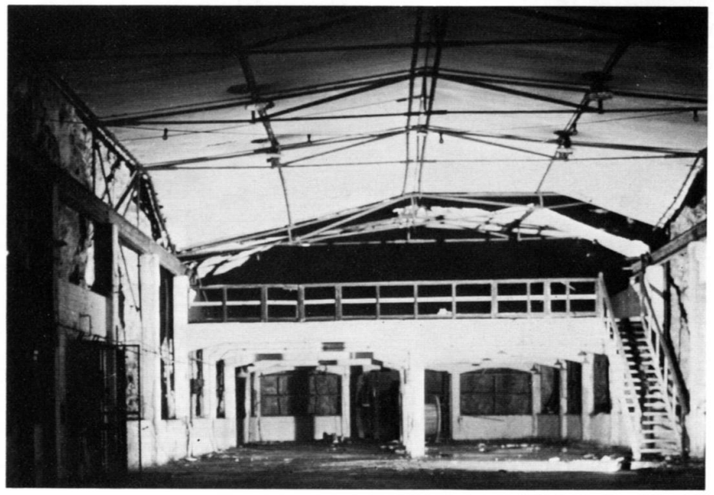
The main tunnels did not require lining except at the entrances from the rock face, for a distance of 30-50ft or where faults occurred in the rock. In these places, a reinforced concrete lining was used.

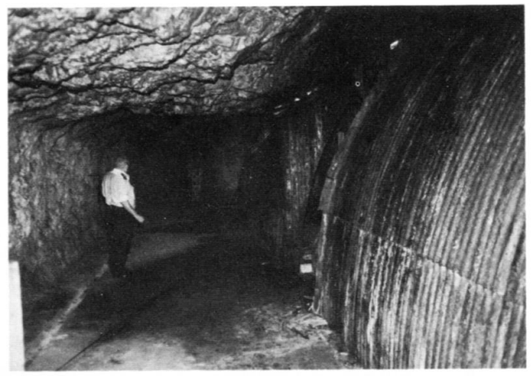
A steady temperature of 62-65 degrees Farenheit was experienced throughout the year so that electric heating was provided only in the special buildings. The electricity was provided by four power stations with a total installed load of 1,200 kW. The engines were direct-injection Diesel types, extract fans carrying the exhaust fumes into the open air. These units supplied the lighting, the limited amount of heating, and operation of workshop machinery. Lighting in the main tunnels was by bulkhead fittings carrying 100 watt bulbs at 25ft centres.

Hospitals, laundries, and similar installations required heating, and oil-fired boilers were provided, sited near the rock face, to ease the exhaust flue problems.

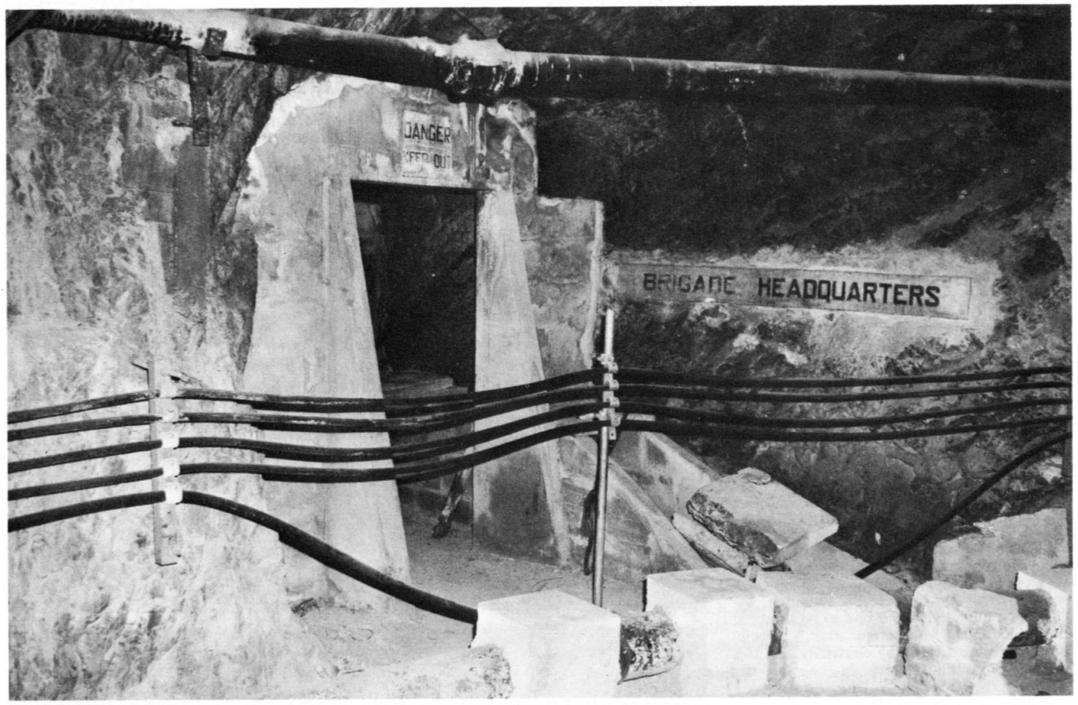


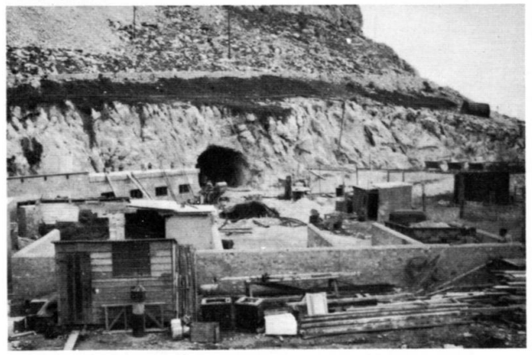
Three stages in the life of REME Chamber. *Above:* The early stages of construction and *(below)* during the fitting out stage (IWM). *Bottom:* Specially lit for the occasion, Norman Cumming's photograph of the derelict chamber today.

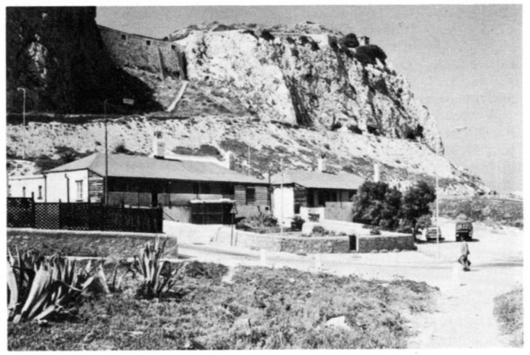




Brigade Headquarters — then and now. *Above left:* **One of the 24ft-span Nissen huts of the HQ deep under the Rock off Green Lane photographed in October 1942 (IWM).** *Above right:* **Sergeant Trimming of the Gibraltar Security Police points out the same but now mouldering hut in July 1977.** *Below:* **The entrance today.**

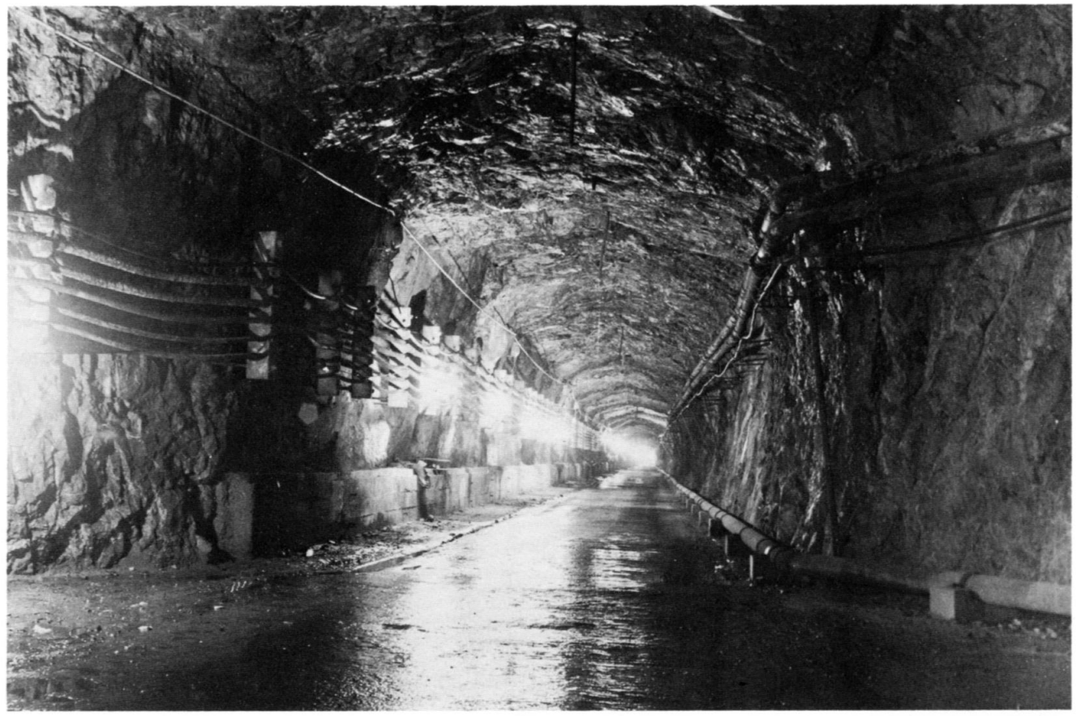






Above left: **Dead Man's Hole Quarry, photographed on October 2, 1942, located just beside Keighley Way Tunnel (IWM).**

Above right: **Today new quarters occupy the former searchlight site and the tunnel entrance has been covered up.**



Above: **The Great North Road, Gibraltar — still used by military traffic on the Rock.**
Below: **The plaque marking the last tunnel to be excavated by the Royal Engineers.**

ER
MOLESEND WAY
Length - 3680 Sft. Width - 9Ft. Height - 10Ft.
DRIVEN BY TUNNELLERS OF 140 FORTRESS SQUADRON
RE. WORK COMMENCED ON 27th NOVEMBER 1966 AND AT
THIS SPOT ON 18th SEPTEMBER 1967 HIS EXCELLENCY
THE GOVERNOR OF GIBRALTAR GENERAL SIR GERALD
LATHBURY GCB DSO, MBE, FIRED THE FINAL BREAKOUT
ROUND AND NAMED THE TUNNEL
ROYAL ENGINEER TUNNELLERS AFFECTIONATELY
KNOWN AS MOLES FORMED PART OF THE COMPANY OF
MILITARY ARTIFICERS RAISED IN GIBRALTAR IN 1772, THE
ORIGINAL UNIT OF THE CORPS
THIS TUNNEL MARKS THE END OF TUNNELLER
TRADESMEN IN THE CORPS OF ROYAL ENGINEERS AND
IS NAMED MOLESEND WAY TO COMMEMORATE THEIR
185 YEARS OF TUNNELLING BY THEM
THIS PLAQUE WAS UNVEILED BY BRIGADIER S.C.
CHAMBERS CBE (LATE RE) ON THE 30th JANUARY 1968

Fresh and salt-water reservoirs were constructed in the rock for each system, the average capacity being 100,000 gallons, allowing each man two gallons per day of fresh water and twenty five gallons of salt water.

The end of the war did not see an end to tunnelling at Gibraltar and of the total of thirty-four miles now extant, the latest tunnel — Molesend Way — was only completed in 1968.

We are indebted to Fortress Headquarters at Gibraltar to be allowed permission to reproduce, for the first time, the once-secret map showing the complete layout of the tunnels.

The early workings of the Upper Galleries, the cannon embrasures from which overlook the airfield, are readily available for public inspection for a small fee and Keightley Way Tunnel is now a one-way, two-lane public road providing a convenient short cut from Europa Flats to Rosia Bay. The remainder of the tunnels are still under Army control but the Fortress HQ Public Relations officer, Captain Steve Coltman, kindly arranged for us to have a conducted tour of the places we wanted to photograph for our comparison pictures.

Before visiting Gibraltar, we did not appreciate the size and extent of underground workings and we were surprised to discover that all the communication tunnels could be traversed by Land-Rover. Just off the Great North Road, Brigade Headquarters, once the wartime nerve centre, is now just a collection of rusting, disintegrating nissen huts although some chambers are still in use for various purposes. Other tunnels, such as AROW, have now been closed because they are considered unsafe.

Captain Coltman had already identified the location of the majority of our tunnel construction pictures as being taken at Monkey's Cave — an underground convalescent hospital near the south-eastern corner of the Rock completed in 1942. Below the hospital, a steep flight of steps lead down the cliffs to Governor's Beach, a secluded cove (now used for live-firing exercises) from where the Governor of Gibraltar would have escaped had the Rock fallen. The escape tunnel entrance, although cemented up in 1948, is still visible in a cave roof below which stands a rusting mooring capstan to which the evacuation submarine would have been anchored.

Operation Felix—the Invasion of Gibraltar

On July 3, 1940, the Royal Navy bombarded the French fleet at Mers el-Kebir, the military port of Oran in North Africa, to prevent any possibility of the ships being used by the Kriegsmarine. This action forced the German naval authorities to recognise that any large scale operations were impossible while the British held Gibraltar. (It likewise led to the first air attack on the Rock during the Second World War although not by Axis forces but by the Vichy-controlled French Air Force.) Within days, German planners were examining ways and means of capturing Gibraltar and, by July 12, the initial planning document for direct invasion had been prepared.

It was appreciated that the operation would be difficult and therefore it was decided to send a reconnaissance mission through neutral Spain to Gibraltar to gather as much information as possible on the British defences. On July 22 the party set out in civilian clothes carrying false passports using different routes to Madrid. Prominent members of the group were Colonel Hans Mikosch and Hauptmann Rudolf Witzig who had been awarded the Ritterkreuz for their successful operation against the Belgian Fort Eben-Emael in May *(see After the Battle No. 5)*. The leader of the party was Admiral Canaris, chief of the German Secret Service (the Abwehr) who made contact with his Spanish representative when they reached Madrid.

A meeting was arranged with the Spanish Minister of War and members of his staff at which Admiral Canaris explained the purpose of his visit and the proposed German attack. He requested Spanish help in preparing a map of the British defence system on the Rock although General Franco was only lukewarm on the operation when the Germans met with him later in the day.

Top: **A Valentine moves south along Europa Advance Road, January 1943 (IWM).** *Above:* **The defence of Gibraltar is secure; a Vauxhall passes Governor's Cottage Camp.**

On the 24th, the party proceeded to Algeciras, the Spanish town facing Gibraltar on the opposite side of Algeciras Bay. The only hotel for miles around, the Reina Cristina, served not only for accommodation for visiting Germans but its balconies became excellent vantage points for observing the Rock. The German intelligence-gathering system was installed in houses on the sea front on the road between Algeciras and La Linea — Villa Leon, San Luis, Villa Isabel and Haus Keller — the road quickly being dubbed 'Spy Row' by those on Gibraltar.

The group observed the imposing northern face of the Rock from the Spanish commander's office in La Linea and the western face from the Punta Camero lighthouse. Colonel Mikosch, meanwhile, made a close inspection of the neutral zone and flew with Spanish airlines from Seville to Ceuta, the aircraft departing from its normal flight plan to edge closer to Gibraltar.

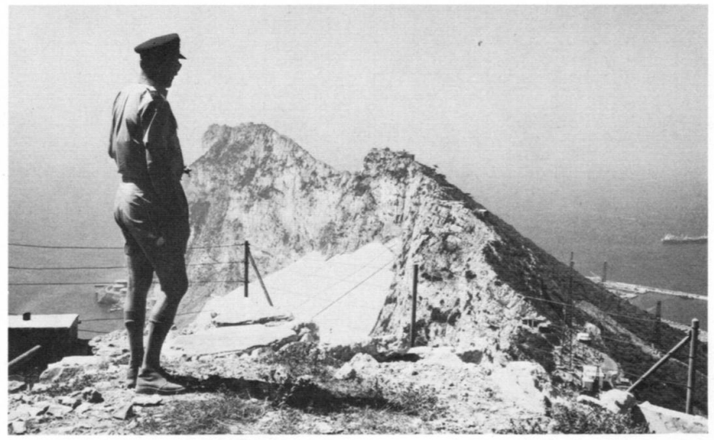
The results of all these observations when summarised at a conference on July 27 were not encouraging. Not only was Spanish participation or acquiescence uncertain but it was accepted that a surprise attack would be impossible. The precipitous slopes and irregular wind currents would preclude the use of paratroops or gliders and the one land approach, across the narrow peninsula, would prove a formidable obstacle. Not only was it mined but it was covered by guns from several angles. Worse still was the lack of good communications for the troops crossing Spain. The Spanish railway system used a different gauge to that of France, which would necessitate transhipment of all equipment at the border and, because all lines south went via Madrid, secrecy during the build up would be impossible. Were the inferior Spanish roads to be used instead, it was estimated that six to eight weeks would have to be allowed for the 1,200km journey from France to Gibraltar.

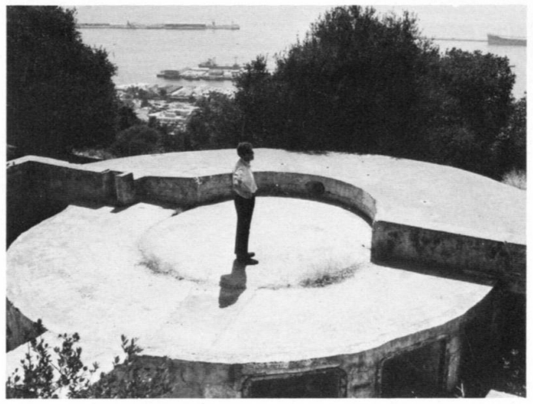
A more detailed plan was prepared after the group had returned to Berlin. The best point for the attack was considered to be the north-west corner, although heavily fortified. The minimum requirement for the assault force was set down as two infantry regiments, one of which should be a mountain unit; one engineer construction battalion; two combat engineer battalions with a company of the small, remote-controlled, explosive-filled Goliath tanks and a special company of mine experts. The artillery would require eleven or twelve regiments with a total of 167 guns to give them what was believed to be a three to one advantage. These would include 21cm Moerser and 88mm anti-aircraft guns which could shell the deeply-emplaced British weapons in the north face with direct fire.

A graphic description of how the attack was envisaged was given to American Professor of History Charles B. Burdick by several Germans, including Colonel Mikosch and Hauptmann Witzig, during the research for his book *Germany's Military Strategy and Spain in World War II* published in 1968 by the Syracuse University Press:

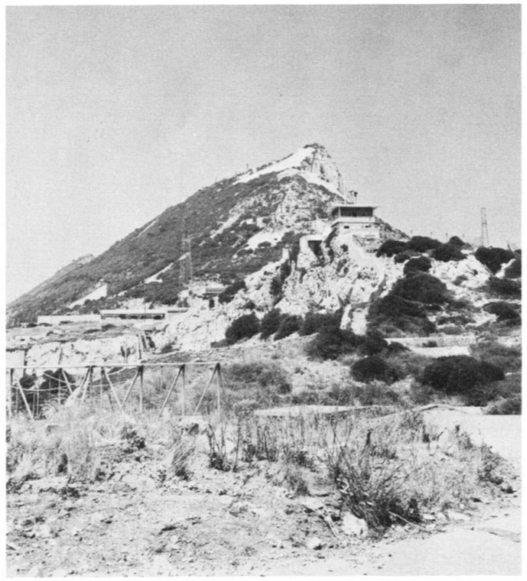
'The artillery would begin the softening up process with a short thirty-minute barrage upon the British anti-aircraft positions and any fleet units which chose to remain within range. As the gunfire lifted, a heavy dive bomber assault would smash the northern segment of the town, seal up the known tunnel entrances, and destroy any naval vessels surviving the artillery bombardment. Those anti-aircraft guns brash enough to open up on the aerial bombers would be immediately taken under fire by specially designated German guns. As the aircraft departed, the German batteries would resume their full volume of fire against the defending galleries, field positions, and observation posts. In substance, the guns would seek to effectively tie down the defenders and obscure their vision. Shortly after the entire artillery force made its strength known, 4,000 to 5,000 rockets would be discharged on the British front with particular emphasis on the points selected for infantry penetration.

Above: **The Bofors position on Middle Hill situated on the 330-metre contour line above Catalan Bay Village (IWM).** *Below:* **Except for the restaurant on Signal Hill, the Upper Rock is still a restricted military area closed to public view. Squadron Leader Harry Marks was our guide to the same site, now occupied by an RAF signals unit.**





Above: **The northernmost 6-inch gun of Tovey Battery, photographed in January 1942, situated on the escarpment behind the town (IWM).** *Right:* **Captain Steve Coltman on the abandoned site in July 1977.**



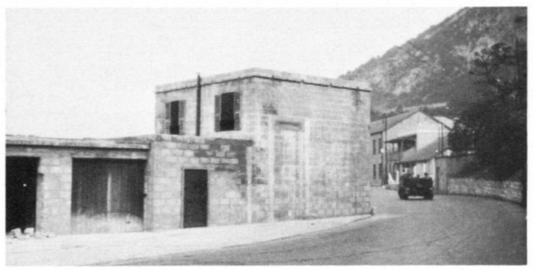
Left: **A graphic illustration of the barrage which could be put up by the Gibraltar defences was given on September 10, 1943. Lieutenant G. W. Dallison photographed searchlight units and tracer-firing guns batteries celebrating the capitulation of Italy (IWM).** *Above:* **With the help of Captain Coltman, we were able to establish the exact spot where the wartime photographer had stood — just behind Windmill Hill Signal Station looking north towards the Naval high-frequency receiving station.**

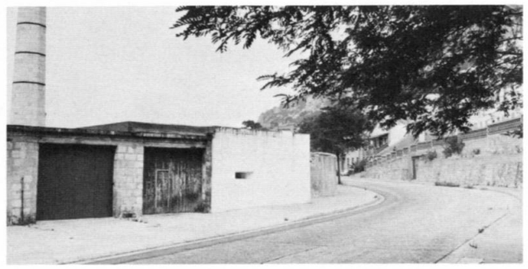
'In the midst of this turmoil the combat engineers, closely followed by the assault companies of the mountain troops would spring forward to the main assault. These troops would debouch from La Linea where they could form up during the previous night from assembly positions in the Sierra Carbonera. (Earlier movement would not be possible because of superlative British observation.) Moving behind the drumfire laid down by the artillery, the assault elements would attempt a rapid advance over the 1,500 meters of open ground, bypassing as many obstacles as they could and overwhelming those which they could not avoid. Once across this narrow death zone, the advance would drive along the southwest corner of the main prominence into the town itself since an attack up the perpendicular northern wall of the Rock was impossible. Those elements which did reach that area would take advantage of the dead ground at the base to slide along to the west and aid those troops already turning the shoulder at that point. Once past the narrow open corner, the attack should strike east and south to overwhelm the defenses on the northwest flank of the pinnacle. As the firefight grew more critical, assault boats from La Linea, under cover of extensive smoke screens, would land on the Old Mole and disrupt the defender's cohesion. The first day's objective was the Moorish Castle and the planners estimated that three days of hard fighting would be sufficient to bring victory.' (The use of tanks was discounted because of the flat, narrow restricted battlefield area).

On August 14, Hitler gave his approval to the Gibraltar operation (FELIX) as part of the general offensive against England including 'Operation Seeloewe' — the landings on the British mainland. The main pre-requisite was seen to be Spanish approval and, accordingly, General Wolfram Freiherr von Richthofen, Commander VII Air Corps, flew to Spain on September 9 to meet with General Franco. The Spanish leader expressed his fears about participating in a lengthy war and the effect on Spain of a prolonged blockade and asked for supplies of grain, fuel and other materials to be supplied by Germany before he would consider entering the war. A week later discussions were taken a step further when the Spanish Foreign Minister arrived in Berlin to see his German counterpart, Joachim von Ribbentrop, and it was soon apparent that Franco was withholding his consent until Germany had beaten Great Britain.

Having postponed 'Seeloewe', Hitler was anxious not to lose the military initiative although further discussions with Spain throughout September failed to produce anything of real value. During the Fuehrer's meeting with Mussolini at the Brenner Pass on October 4, he complained to the Duce about Franco's intransigence; about the latter's seeming ungratefulness for German help in the Spanish Civil War and his general lukewarm attitude toward the Axis powers.

Upon his return to Germany, Hitler decided that a summit meeting with the Spanish leader was now long overdue and he arrived in his Fuehrersonderzug at the railway station of Hendaye on the Franco-Spanish border on October 23. The Caudillo promptly announced Spain's willingness to enter the war but reiterated his country's problems of a bad harvest, lack of material strength to last a long conflict and his need of German aid before declaring war. Hitler, frustrated at receiving no firm commitment from the Spanish leader, then broached the subject which was the real purpose of his visit — Gibraltar. He explained that without this outpost, Britain would be excluded from Africa and the Mediterranean; that the elite Eben-Emael troopers would lead the assault and afterwards Gibraltar would be given to Spain. However, despite the lure of

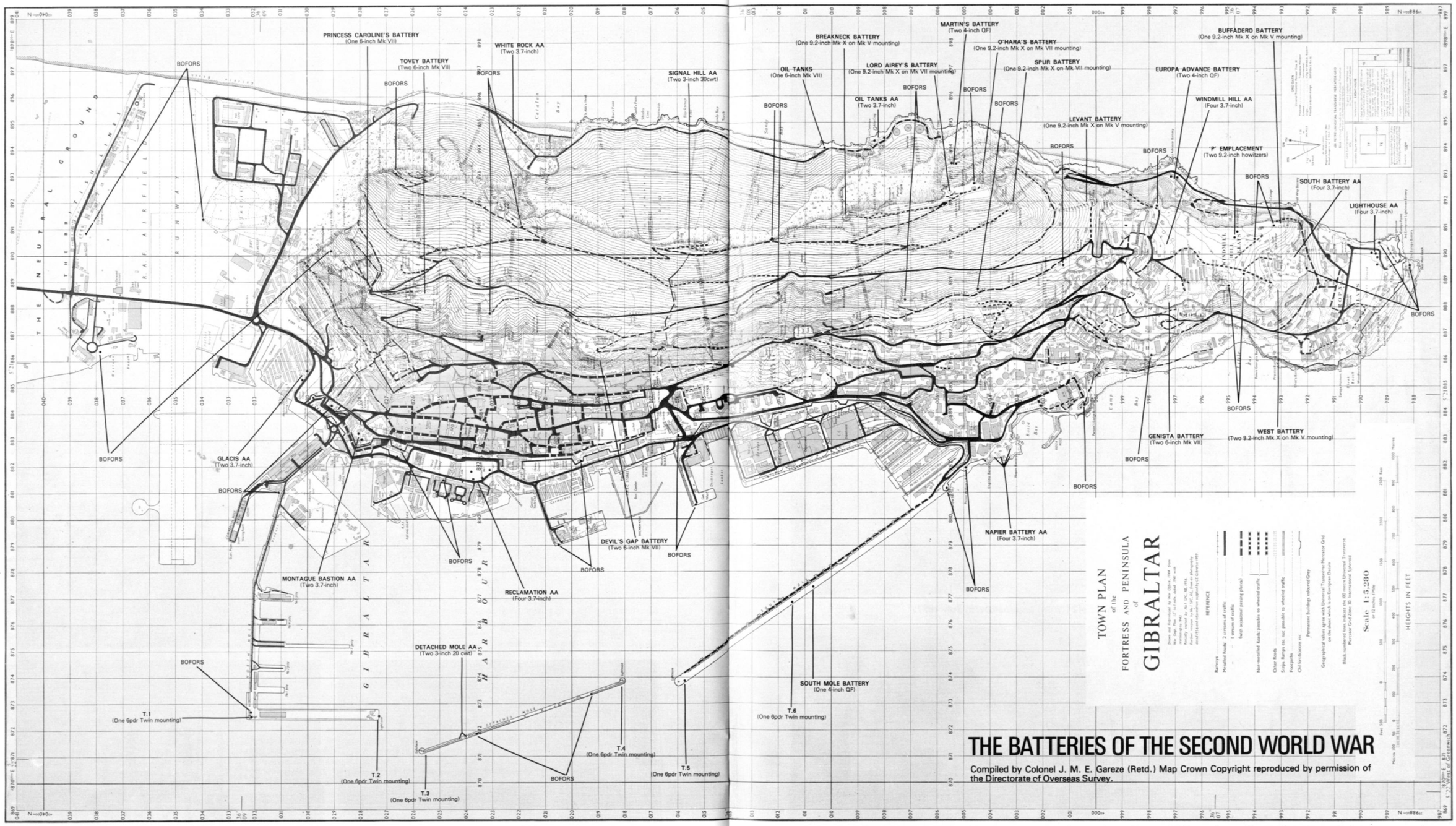




A pillbox behind the Naval Dockyard in Rosia Road — then and now.

Above: **A light anti-aircraft emplacement, part of Royal Battery, on the very edge of the north face of the Rock overlooking Spain from where the German attack was to be launched (IWM).** *Right:* **Today, the Bofors position is the site for the Union Flag which is flown daily, somewhat defiantly, over 1,300ft above Spain.** *Below:* **Rock Gun itself was unfortunately left in situ when the RAF radar station was built on top of it.**

Left: **During the war, the Union Jack flew from literally the topmost point on the Rock — this ENSA party is captioned as being beneath the highest British flag in Europe (IWM).** *Above:* **After the war the flag had to be moved slightly lower down so as not to interfere with the RAF's sophisticated radar installation.**



THE BATTERIES OF THE SECOND WORLD WAR

Compiled by Colonel J. M. E. Gareze (Retd.) Map Crown Copyright reproduced by permission of the Directorate of Overseas Survey.

the acquisition of a long-desired territory, Franco declined to give his unconditional support for the attack.

Meanwhile, in Germany, plans for the assault continued. With a possible target date of mid-December, General Franz Halder, Chief of the Wehrmacht General Staff, prepared his detailed list of the forces required on the assumption that the invasion units would be totally German.

In all, 65,383 men would be required with 1,094 horses and 13,179 tons of ammunition. They would require 136 tons of food per day and a total of 9,000 tons of fuel. As these supplies could not all travel with the troops, advanced bases would have to be established at Burgos, Salamanca, Merida and Seville. The SS 'Totenkopf' Division was earmarked to provide flank protection against a possible British landing on the Iberian peninsula.

Further reconnaissance trips were made to observe and calculate the Gibraltar defences and from these the Germans estimated that the British garrison numbered at least 10,000 men with provision underground for 16,000 persons and supplies for an eighteen-month seige. It was now accepted that the capture of the Rock would be a formidable task. While the Germans precluded any idea of a long seige, they realised that the defenders, with no lines of withdrawal, could only fight or surrender.

Prospective training sites were located in the Besancon area of France where the limestone rock and contours of the Jura mountains simulated the terrain at Gibraltar and here German engineers constructed duplicates of the Rock's defences. The 1st Mountain Division staff were activated, including the 98th 'Grossdeutschland' Mountain Regiment and the 106th Artillery Command, and moved to the training area. The actual assault would be commanded by Feldmarschall Walter von Reichenau, Commander of the Sixth Army.

Hitler's Directive No. 18, dated November 12, 1940, included his intention for Operation Felix based on four phases:

1) Civilian reconnaissance parties were to visit the area to complete final plans while special detachments would seal off Gibraltar against any sudden British move and the troops for the attack would assemble in south-western France.

2) A surprise aerial attack on the British Fleet to drive the naval units out to sea would be co-ordinated with the crossing of the Spanish border by German troops. The attacking aircraft would take off from France but land in Spain.

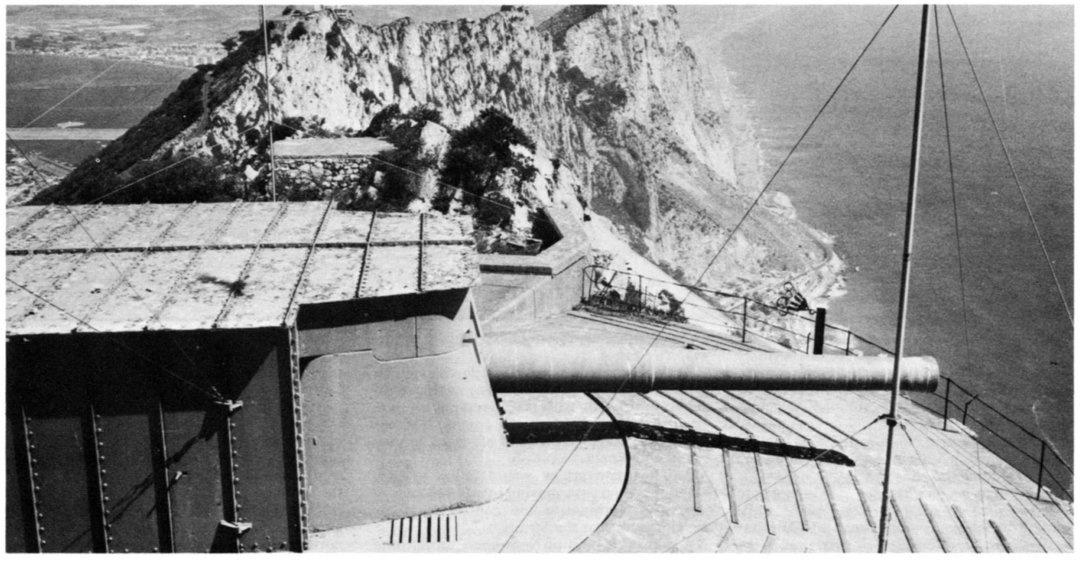
3) The main attack would follow in conjunction with troops moving into Spain and

4) The Germans would consolidate their position and close the Straits.

Towards the end of November, unwelcome discoveries were made by the reconnaissance missions in Spain. The first concerned wind conditions around the northern rock face of Gibraltar. Smoke had been considered essential to blind the defending guns but it was now seen that although the Levanter often covered the top of the Rock, a general updraught kept the northern face clear. Smoke would therefore blow up and over the top of the rock.

Then German plans to bring down railway guns with a range of 30km or so to blast the north face of the rock ran up against the poor

Breakneck Battery, a 9.2-in MkX on a MkV Mounting, *(above)* **in January 1942 (IWM) and** *(below)* **in July 1977.**



Spanish rail system, in particular the bridge at Hendaye-Irun. Close inspection revealed that the central arch had crumbled, probably because the piers were settling at an uneven rate. Expert opinion predicted the collapse of the bridge if it was used by heavy military traffic. Various alternatives were examined including repair of the bridge and the construction of a replacement further downstream whilst a search was initiated for an alternative bypass route.

While these problems were being solved, and training was continuing at top speed on the terrain around Besancon, Hitler was becoming committed in other directions. A precipitous Italian attack against Greece at the end of October led to the commitment of German forces in that theatre and already Hitler's thoughts had turned towards the east and Russia.

At Hitler's final briefing on Operation Felix on December 5, General Halder pointed out that the operation could begin within 25 days from the initial crossing of the Spanish border or 38 days if secrecy in movement across France was to be observed. The actual campaign should only last four weeks which would allow for the release of troops for use elsewhere by May.

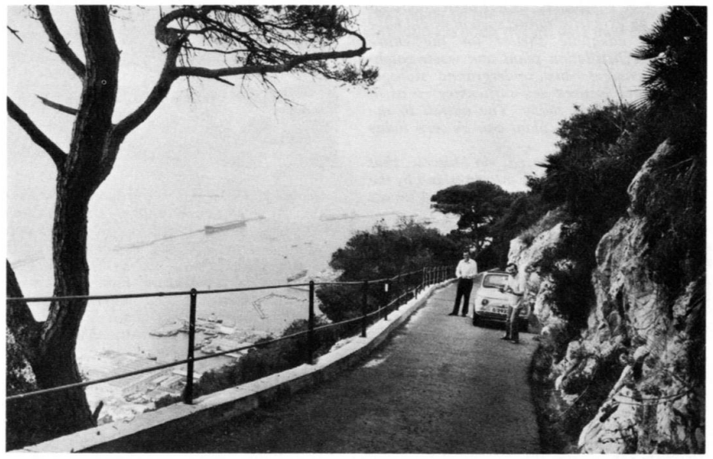
Final intelligence reports were presented which stated that the British had some 27 casemates facing Spain with a total of 98 guns for ground use and 50 anti-aircraft pieces against which the Germans would range 210 heavy guns. It was planned to fire 6,000 shells during the 24 hours preceding the infantry attack to clear six lanes, 25-metres wide, across the minefield. One hundred shells would be fired at each British gun emplacement facing the peninsula, giving a planned total of 9,360 shells to silence the guns and a further 10,800 to neutralise all defences. A 1:1000 scale model was used at the briefing to illustrate each phase of the attack.

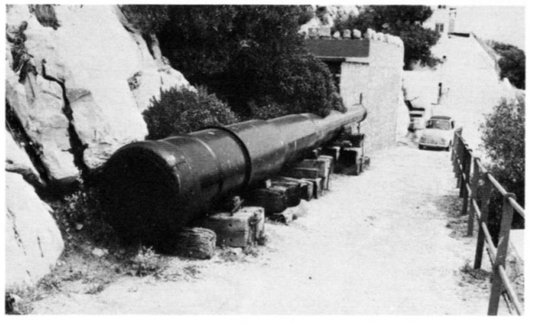
The Fuehrer announced his intention to obtain Franco's consent to begin the operation on January 10 with the frontal assault on Gibraltar commencing on February 4 or 5. Admiral Canaris was already in Madrid with instructions to promise that the supplies that Spain wanted would begin to flow as soon as German troops crossed the border. Although Canaris spent five days negotiating with General Franco for a positive date for the commencement of 'Felix', the Spanish leader continued to procrastinate. He finally declared that Spain's entry to the war was conditional upon the imminent collapse of Britain.

This firm line taken by Franco virtually brought a halt to the German plans to capture Gibraltar. On December 11, Hitler ordered the cessation of all preparations for 'Felix' except that reconnaissance around Gibraltar was to continue. Nevertheless, by the end of December, with Britain on the move throughout the Mediterranean — in Greece, Albania, Libya and East Africa — Admiral Raeder pressed the case for continuing with 'Felix'. In his opinion, the only response to British movements on all these fronts — only made possible by the Royal Navy's Mediterranean bases — was the capture of Gibraltar.

Hitler concurred but, having already taken the decision to invade Russia, had no wish to get involved in a twentieth-century Peninsula War by pressing on with 'Felix' against the wishes of Franco. Diplomatic pressure was therefore continued against the Caudillo

Above: **Vice-Admiral Sir James Somerville (right in background) watches the transportation of a spare 9.2in gun barrel for O'Hara (IWM).** *Below:* **Captain Ivor Oddie, watched by Captain Coltman, gives a helpful push on O'Hara's Road in July 1977. The rings, once used to anchor pulleys to haul heavy guns up the Rock, can still be seen at the sides of many of the roads in Gibraltar.**





Left: **The spare barrel stored in readiness just below the actual gun position (IWM) where it still remains today,** *photo above.*

throughout January 1941 to modify his rigid position but without success. Although Hitler confirmed his order halting all 'Felix' preparations on January 28, nine days later he wrote personally to Franco trying to persuade him to change his mind. Mussolini also met with Franco on February 12 on the Italian Riviera but was only faced with a new Spanish pre-condition; that Spanish troops must lead the assault. This was the last straw and von Ribbentrop ordered all further diplomatic efforts in Spain to be discontinued forthwith. General Franco had withstood all the pressures, every bribe and inducement and the Gibraltar defences had been spared their trial by battle.

Although Operation Felix was officially abandoned in February 1941, within a month it had officially been put forward as the logical follow-up operation to the 'certain' victory over Soviet forces later that year. This time it had the code name 'Felix-Heinrich' and it was to be put into operation when German forces reached the line Kiev-Smolensk-Opotschka which was expected to be by July 15. The date of the attack was stated as October 15 and, in spite of the German reverses in Russia, discussion on the plan continued on and off right up until the middle of 1942.

Although the defences at Gibraltar were never tested in a full-scale assault, there is little doubt that the Rock could have withstood considerable punishment. Even under seige conditions, as has been described earlier, an extensive tunnel system would have provided adequate shelter for the entire garrison. Distillation plant and water catchment measures with underground storage, would have insured self-sufficiency — as in fact they still do today. The outfall to the Army's desalination plant can be seen today close to Little Bay.

In 1941, it was reported, via Moscow, that Gibraltar had been made into an island by the excavation of a deep, water-filled ditch across the isthmus. When the report reached London, the authorities saw no reason to deny the existence of the water trench and illustrations of it even found their way into the popular literature of the time.

Gibraltar in the 1970s remains one of the last British outposts and many of the Second World War fortifications can still be seen there today. For readers interested in seeing artillery positions intact, including guns up to 9.2-in calibre still in situ and in working order, Gibraltar is a unique experience.

We are indebted to Colonel J. M. E. Gareze, an ex-member of the Gibraltar Defence Force, for researching for us the location of all the various WWII coastal artillery positions, including light and heavy anti-aircraft defences, as depicted on the map reproduced on pages 30-31.

Above: **Warships in the harbour are overlooked by the four 3.7in AA guns of Napier Battery.** *Below:* **The same position in 1977 photographed from the roof of the Fortress HQ Quartering Service.**

Colonel Gareze points out that 'of the HAA sites, Napier, South Battery and Windmill Hill were equipped with 3.7-in Mk II guns (static) and the rest had 3.7-in Mk I or III (mobile). The Bofors positions all had one gun each, and in addition all light anti-aircraft and coast batteries had rocket projectors, there being a total of 29 single 'Z' projectors and 28 double 'Z' projectors, as well as four multiple naval mountings.

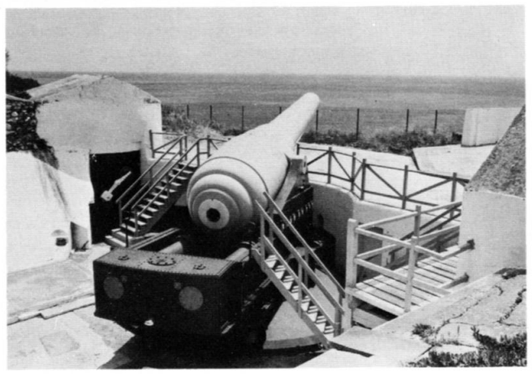
'There was also a mobile regiment, 18 Defence Regiment, RA, which had a number of mobile or movable guns deployed over Gibraltar', says Colonel Gareze. 'There were three 6-pdr 7-cwt, one 17-pdr, nine 25-pdrs, five 75-mm, eight 4-in naval, ten 4.5-in howitzers, seven 6-in howitzers and two 9.2-in howitzers. The 9.2-in positions are shown on the map, but not the others as they tended to shift around in the tunnel embrasures, mostly on the north face, and no record remains of these positions; they were mostly 6-pdrs, 17-pdrs, 75-mm and 4-in. Heavy anti-aircraft sites also had, as secondary armament for low-flying targets, a total of 24 Oerlikon 20-mm guns, which were a standard naval issue.'

Although the operational 9.2-in guns of Lord Airey's, O'Hara's and Spur Batteries are presently behind locked gates and cannot be visited by the public, the latter position is in the course of being handed over to the Gibraltar authorities to be opened as a tourist attraction. O'Hara, with a range of 30,000 yards was last fired in 1973. The other 9.2-in battery, Levant, is disused and is open to the public.

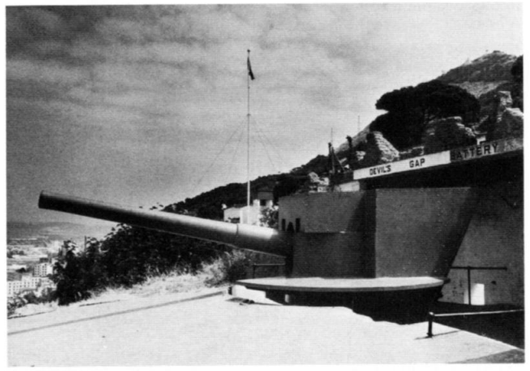
Other batteries, which can be freely inspected, are the four post-war 5.25-in dual-purpose guns of Princess Anne's Battery overlooking North Front and the 6-in guns of Devil's Gap Battery overlooking the town just off Old Queen's Road. The barrels are plugged and the covers welded up.

Visitors interested in the artillery of yesteryear will also not be disappointed — the most magnificent specimen being the 100-ton, muzzle-loading Rock Gun, beautifully preserved beside Fortress HQ. It was built in 1872, needed thirty-five men to operate it and could fire 2,000lb shells eight miles once every four minutes. Although the gun was steam driven, it was considered that it would take an approaching warship two hours to reach the bay after being sighted from the observation post over seven hundred feet higher up the rock — time enough to get the gun operational. (A similar sister gun is the only artillery piece still to remain in situ on the island of Malta.)

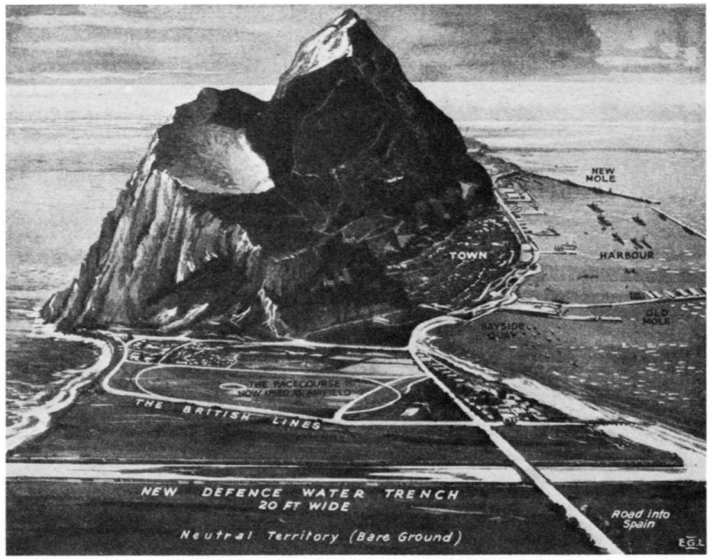
Many ruins can still be seen on the Rock dating from the Moorish days although, unfortunately, the Devil's Tower, dating from the seventeenth century which stood at the foot of the cliff on North Front, was demolished in 1940 as it blocked the direct line of fire across the isthmus. The site is now marked with an appropriate plaque.



The beautifully-restored Rock Gun (not to be confused with Rock Battery) which can be seen just beside Fortress HQ at Rosia Bay.



One of the two 6-inch MkVIIs of Devil's Gap Battery also easily accessible for 'after the battle' enthusiasts.

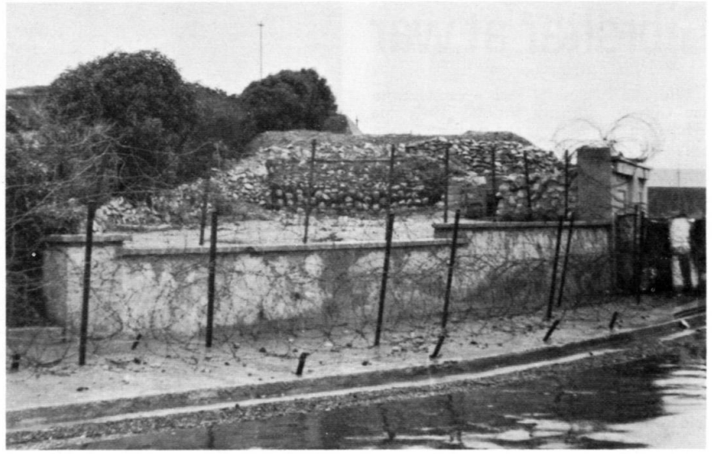


Above: **In November 1940 it was reported in** *The War* **weekly magazine that Gibraltar had been separated from the mainland by a wide, deep, water trench. It seems that this report originated in Moscow. In the June 6, 1941 issue of the magazine it was confirmed with the inclusion of this artist's impression, although no such trench was ever dug.**

To give the various Fortress Commanders a better conception of the defence of the Rock, two models were constructed of Gibraltar in 1865 by Sappers Williams and McLellan from a survey made by Lieutenant Warren. One can now be seen in the Gibraltar Museum in Line Wall Road and the other, still kept up to date, is the centrepiece in the briefing room at Fortress HQ at Rosia Bay.

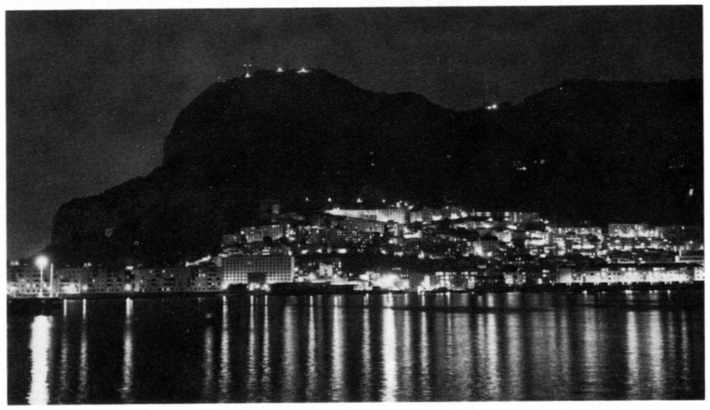
The continuing requirement for ammunition for storage and training led to a disastrous accident in 1951 when the ammunition ship Bedenham exploded in the harbour. Following the incident, a new, remote ammunition quay was constructed below the cliffs on the eastern side of Gibraltar between Sandy Bay and Governor's Beach.

Today Gibraltar remains one of the cornerstones of NATO's southern flank, continually manned by members of Britain's three armed services. The presence of the Queen's uniform wherever one goes is a nostalgic reminder of the important role played by Gibraltar during the Second World War.



Centre right: **A camouflaged, heavily-wired pillbox facing Spain in Glacis Road (IWM).** *Right:* **Today, overlooked by the new Glacis Estate tower blocks, the site is an overgrown rubbish tip.**

Gibraltar at war



Gibraltar at war . . . and peace. *Top:* **Photographed by Lieutenant Dallison during an air raid alert on the Rock on November 20, 1942 (IWM) and** *(above)* **by Norman Cumming.**

With the collapse of French resistance to the German offensive in May 1940, the evacuation of women and children from Gibraltar was begun as a precautionary measure and this was soon extended to all civilians who were not directly concerned with defence of the Rock. Altogether more than 15,000 Gibraltarians were evacuated to the United Kingdom, Jamaica and the Madeira Islands. From August 29, 1940, all those between 18 and 41 years of age that remained were subject to compulsory military service.

Defence was directed into three zones: one against land attack from Spain; the second covered the harbour, docks and RAF seaplane base while the third protected the interior of the Rock. From 1939, work to improve the defences had continued non-stop and it was claimed that these had been strengthened five-fold by the summer of 1940.

A convenient labour pool was provided in the Spanish town of La Linea from where thousands of workers travelled daily into Gibraltar. Although all the Spaniards had to return home each evening, after which the frontier gates would be locked for the night and an 11.30 p.m. curfew enforced, the security problem was enormous. The authorities realised that the infiltration of enemy agents could be relatively easy and stringent checks were made by the large MI5 detachment on all entering Gibraltar. As most of the Spaniards worked in the dockyard and crossed the military airfield twice a day, the rewards for Axis intelligence were considerable. British military personnel were also allowed to visit Spain, and the bars and cafes of La Linea also became a convenient hunting ground for German agents seeking information about life on the Rock.

The first intimation about the activities of enemy agents at Gibraltar was made public in 1942 with the announcement of the execution at Wandsworth Prison, London, of Gibraltarian Jose Key *(see After the Battle No. 11)*. Key had been arrested on March 4, 1942 and, having in his possession information on the movements of ships and aircraft at Gibraltar, was sentenced to death on May 18 under the provisions of the Treachery Act 1940.

Although Key had been brought to London for trial and execution, nineteen months later, two Spanish nationals were tried and executed in Gibraltar for offences under the Gibraltar Defence Regulations of 1939.

Luis Lopez Cordon-Cuenca was an agent working for the German Secret Service in southern Spain which was recruiting Spaniards working in Gibraltar for acts of sabotage. Cordon-Cuenca worked in the Empire Fruit Shop at 114 Main Street but was also employed on maintenance in the dockyard. In June 1943, the main tunnel there — Ragged Staff Magazine — was full of ammunition ready for the Sicily landings the following month.

MI5 received information that a bomb was to be brought across the frontier and Inspector William Adamson of the Gibraltar Security Police followed up the tip-off by visiting the suspected fruit shop. There Inspector Adamson's suspicions were confirmed when he noted some swastikas drawn on a wall. It was decided to arrest Cordon-Cuenca and MI5 arranged a trap to be sprung on June 23. The MI5 informant agreed to get the Spaniard to meet him on a bench seat bordering the gravel hockey pitches beside Line Wall Road which was overlooked by the Brigadier's office in Cathedral Square. At 6.10 p.m., Inspector Adamson approached the pair on the seat and, unusually, an Army photographer was posted to take a picture of the actual arrest. Cordon-Cuenca was taken to the Central Police Station in Irish Town while the informant (also arrested for appearances sake) went to Windmill Hill Military Prison from where he was quietly released.

After interrogation, Cordon-Cuenca was taken to Windmill Hill and, in order that no complaint could be raised at his trial over his treatment by the authorities, he was taken daily by Inspector Adamson to the Victoria Hotel for his meals. He admitted that the bomb was hidden at the fruit shop and, after a thorough search, it was found in the fruit store.

Cordon-Cuenca was brought to trial on

Ragged Staff Tunnel (see plan page 18-19) still used by the Royal Navy, was the target for Cordon-Cuenca in 1943.

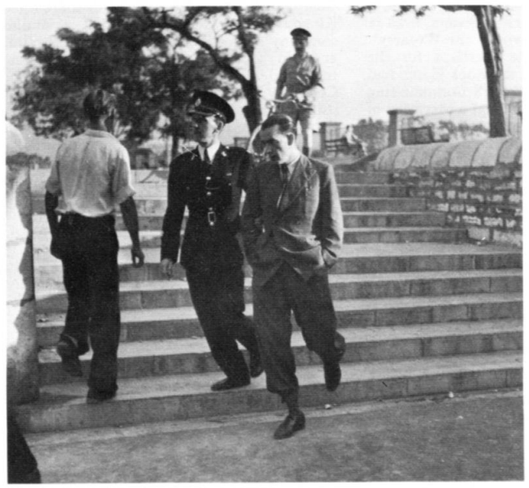
Phillips Electrical now occupy the old Empire Fruit Shop at 114 Main Street where Cordon-Cuenca hid the bomb.

August 19 before a Special Court under the Chief Justice of Gibraltar, His Honour John H. G. McDougall being defended by the Hon. Peter G. Russo. He was found guilty on August 25 of 'treachery by acting with intent to help the enemy contrary to Regulation 23 of the (Gibraltar) Defence Regulations 1939 as amended by paragraph 2 of the Defence (Amendment) (No. 17) Regulations 1943'. As it was argued that the Special Court had no jurisdiction in Gibraltar and that this was 'ultra vires', by his defending counsel, an appeal was therefore lodged with the Privy Council in London.

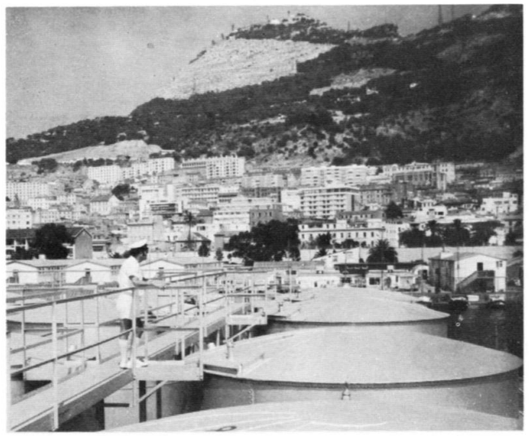
Meanwhile, another Spaniard had been arrested following an explosion in the fuel enclosure on Coaling Island on June 30. Jose Martin Munoz was employed in the dockyard and, acting on information received, was arrested by Sergeant Joseph Ferro of the Security Police as he entered Gibraltar at the frontier at Four Corners on his way to work. He was taken to the Central Police Station. There he admitted that he had a second bomb with which he intended to commit further sabotage had he escaped detection. This was found by Security Officers in a coal-hole at the Imperial Cafe in Main Street.

He was brought to trial (which was held in camera) on October 11, and he was to be defended, like Cordon-Cuenca, by the Hon. P. G. Russo. However Munoz pleaded guilty and he was summarily sentenced to death by

Above left: **Police Headquarters in Irish Town in July 1977 and** *(right)* **the Victoria Hotel.**



Left: **A rare photograph of the actual arrest of an enemy agent. Inspector Adamson escorts Cordon-Cuenca from Sir Herbert Miles Promenade on September 23, 1943 (IWM).** *Above:* **Bill Adamson re-enacts the past for us on July 27, 1977.**



Thirty-four years later, a Royal Navy officer reflects on the past at the fuel store on Coaling Island (see map page 30-31) sabotaged by Martin Munoz on June 30, 1943 (Norman Cumming).

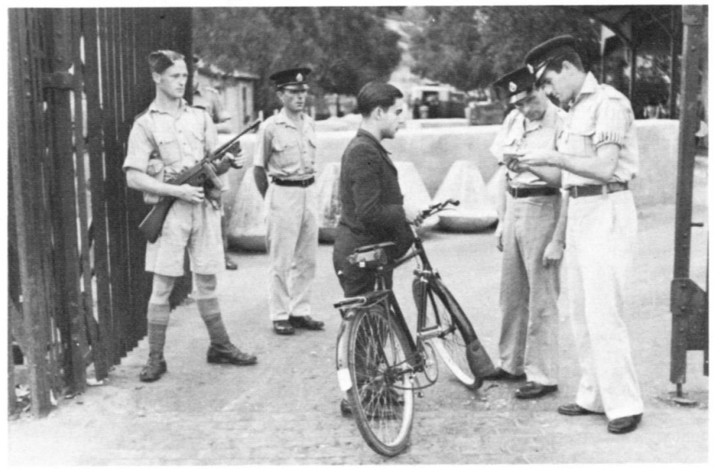
The building once occupied by the Imperial Cafe, where Munoz's bomb was found, is now the Allgemene Bank of Gibraltar. No. 2-6 is only yards from the Victoria Hotel on the left.

Chief Justice McDougall. The hearing had lasted less than 15 minutes. Reports stated that Munoz heard the sentence calmly and nodded, indicating that he had understood when the terms of the death sentence were translated into Spanish by the interpreter. However, after the sentence had been pronounced, Mr. Russo referred to the appeal then before the Privy Council against the legal ruling made by the Chief Justice during the trial of Cordon-Cuenca. In reply, the Attorney-General, the Hon. W. J. Lockhart-Smith, stated that the sentence would not be carried out until the Privy Council had given its decision in the other case.

The appeal was heard on December 13 by the Lord Chancellor Lord Atkin, Lord Porter, Lord Clauson and Sir George Rankin, the Court ruling against the submission by the Hon. Peter Russo and confirming that the sentences would stand.

It was arranged that the official Home Office executioner, Albert Pierrepoint, would fly to Gibraltar to perform the execution. At 9.00 a.m. on January 11, 1944, Cordon-Cuenca mounted the specially-constructed scaffold in the Gibraltar civil prison yard to be followed three minutes later by Martin Munoz. After the execution, both men were buried within the prison walls.

However, in spite of these grim happenings, life in Gibraltar had a lighter side. Relations with the Spanish were maintained on a cordial basis with the Governor inviting the Spanish Officer Commanding the Camp of Gibraltar, General Fernando Barron, and his wife to lunch at the Convent, as the Governor's residence was and is still called. Important visitors to the Rock — the Duke of Gloucester, Winston Churchill several times, General Eisenhower, General Sikorski and General Montgomery's double — were all accommodated at the Convent. Visiting Entertainments National Service Association (ENSA) parties arrived at regular intervals, either to entertain the troops on the Rock or just while stopping over during Forces' tours, John Gielgud, Michael Wilding, Beatrice Lillie, Noel Coward, Vivien Leigh and others staying at the spacious Rock Hotel. All VIP visitors were entertained by the Governor (Lord Gort until May 1942 when General Mason-Macfarlane, 'Mason-Mac' to his associates, took over) at the Convent. Anthony Quayle, who was General Mason-Macfarlane's military assistant *(see After the Battle No. 15)*, organised a special production of Andre Obey's 'Noah' at the Theatre Royal in March 1943 with an all-services cast, himself in the title role.



Above: **Four Corners in 1942 where Sergeant Joseph Ferro arrested Martin Munoz (IWM).**

The few servicewomen on the Rock, belonging to the Women's Royal Naval Service (WRNS) and Nursing Sisters, lived in segregated quarters known as 'the Wrenery'. All requests for a date, perhaps for the Saturday night dances at the Rock Hotel, had to be approved by the WRNS Commanding Officer or the Matron who kept a black list of 'undesirables'. 'Wrens' were allowed to use Sandy Bay beach, although ringed by wire and concrete defences, and were allowed to reach it by walking through Admiralty Tunnel i.e. a short cut through the Rock from west to east. The servicemen, on the other hand, had to make their way to the eastern side of the Rock by road and one can imagine their disappointment if, after a hot, dusty, tiring walk, there was not a good female turn out at the beach. Many 'Wrens' working shift work would spend their free afternoons sleeping at their quarters instead of sunbathing, much to the disgust of the men waiting at Sandy Bay. Bathing was also permitted at Catalan Bay and Eastern Beach, the latter, because of its isolated position at the eastern end of the runway, being permitted for nude bathing (men only!). The more conventional sports — tennis, squash and athletics — could be enjoyed at the other end of the Rock near Europa Point.

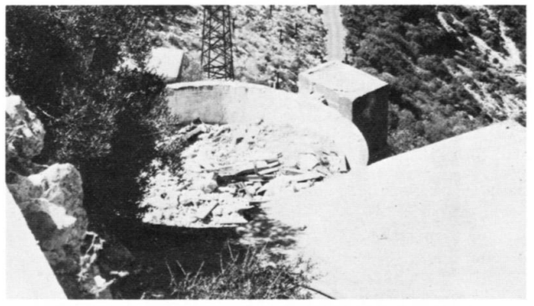
During 1940, when the Independent Companies were being formed in the United Kingdom, it was suggested that a similar company should be established at Gibraltar and, in October that year, the Fortress Independent Company came into being. The Company was composed of four platoons using men from the four battalions of infantry then on the Rock. Thus each of the four platoons was composed of men from the same regiment — the Kings, the Devons, the Somersets and the Black Watch. The Royal Engineers and signals section were similarly provided by men of the REs and Royal Corps of Signals with the Intelligence Section and Company Headquarters largely comprised of members of the Royal Artillery.

As originally conceived, the role of the Fortress Independent Company was two-fold: firstly as a raiding force and secondly as a reserve for counter-attack in the event of the Rock being invaded. All the men were trained in demolition, the handling of boats and landing craft, unarmed combat, sabotage, signalling, swimming in clothes and equipment, field craft and night fighting etc. News of the formation of the company and its skills soon reached German ears and William 'Lord Haw Haw' Joyce referred in one of his broadcasts to 'those thugs and ruffians, the

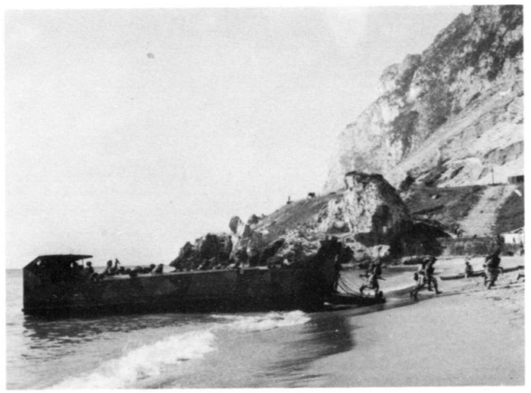
Four places to go swimming at Gibraltar. *Left and above:* **The northern end of Catalan Bay on the east side of the Rock has changed little in over thirty years . . . but see page 40.**

Left: **Eastern Bay at the end of the runway was for men only — discreetly covered for the photographer (IWM).** *Above:* **The beach is now fenced off from the airfield.**

Left: **The girls used Sandy Bay, l-r Mae Craven, Beatrice Lillie, Kay Young, Vivien Leigh and Dorothy Dickson (IWM).** *Above:* **Sally, Valerie and Jennifer stand in for the stars.**



Left: **For the troops on the Upper Rock, this home-made swimming pool at Middle Hill gave the men a welcome cooler (IWM).** *Above:* **Not to be recommended for the same use today.**



Above: **Mason-Mac's Commandos disembarking from a landing craft at Catalan Bay during an exercise in June 1942 (IWM).**

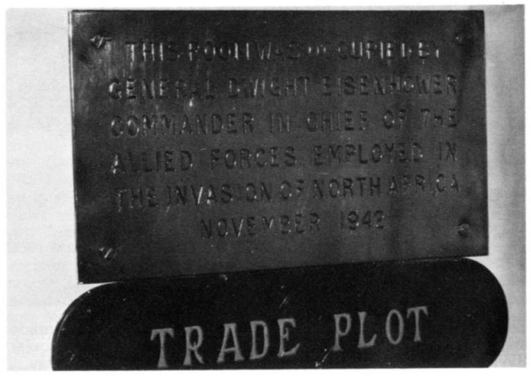
Above: **The Caleta Palace Hotel was built in 1964, completely transforming the southern end of the bay.**

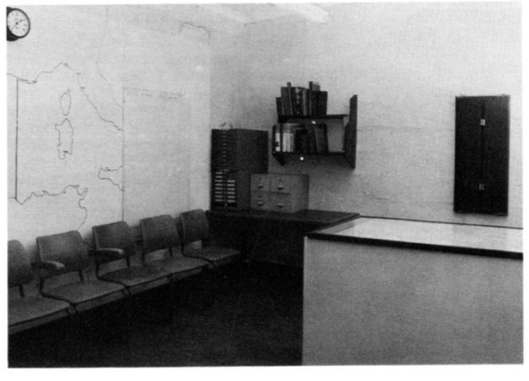
scum of the four battalions on the Rock of Gibraltar'. Later the unit's name was changed to the Independent Company of Gibraltar although General 'Mason-Mac' called them 'my professional killers'.

In November 1942, Winston Churchill placed Gibraltar within the command of General Eisenhower as the temporary headquarters for the first large-scale Anglo-American operation, Operation Torch. Although living at the Convent, General Eisenhower described the underground operation rooms as the most dismal setting he occupied during the entire war. 'The subterranean passages under the Rock provided the sole available office space', Eisenhower wrote in his memoirs, 'and in them was located the signal equipment by which we expected to keep in touch with the commanders of the three assault forces. The eternal darkness of the tunnels was here and there partially pierced by feeble electric bulbs. Damp, cold air in block-long passages was heavy with stagnation that did not noticeably respond to the clattering efforts of electric fans. Through the arched ceilings came a constant drip, drip, drip of surface water that faithfully but drearily ticked off the seconds of the interminable, almost unendurable, wait which always occurs between completion of a military plan and the moment action begins.' However, General Eisenhower conceded that 'there was no other place to use. In November 1942, the Allies possessed, except for the Gibraltar Fortress, not a single spot of ground in all the region of western Europe, and in the Mediterranean area nothing west of Malta. Britain's Gibraltar,' wrote Eisenhower, 'made possible the invasion of north-west Africa.'

On November 7, the day after he arrived at Gibraltar, the General took a drive up the Rock to see the apes which were introduced to Gibraltar by the Moors. Captain Harry Butcher, the General's ADC, says that Ike had heard that anyone visiting the Rock should see the monkeys as they were supposed to bring good luck. During the afternoon, Captain Butcher accompanied Ike on a drive in a Ford staff car around the narrow roads on ledges with sheer drops of hundreds of feet — Private Kronke driving. Arriving at the apes den, Ike patted one on the head — not wanting to miss any opportunity for good luck.

Above: **Lieutenant General Dwight Eisenhower pictured in his underground office on Gibraltar on October 5, 1942 with his aide, Lieutenant Commander Harry Butcher (US Army).** *Below:* **The same room today photographed for us by the RAF at Gibraltar and** *(below left)* **the plaque on the door commemorating its historic past.**





Perhaps the most bizarre incident to occur at Gibraltar during the Second War was in 1944 just before D-Day with the emergence there of General Montgomery's double. As one of the many deception plans instigated to mislead the Germans as to the location and timing of D-Day, the plan envisaged that if General Montgomery, the D-Day Land Commander, could be impersonated successfully, the presence of his double in another theatre of war could lead the enemy to believe the landings were to take place there.

The basic idea was approved by General Eisenhower and a world-wide search began for a suitable person to play Monty. Lists of existing actors, both in the UK and America, were examined by the MI5 team in charge of the operation — a Colonel Lester, Captain Stephen Watts and Lieutenant Jack Hervey — but without success. It was then that Captain Watts remembered seeing a photograph which had appeared in the now-defunct *News Chronicle* of a man in a beret who looked similar to General Montgomery. Tracing the

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Rationing after war

Meat, fats, dairy produce

COL. J. J. LLEWELLIN, Food Minister, said to a Conservative women's meeting in London yesterday:

"When the armistice is signed you will not be able to take down food rationing as you take down the black-out curtains. In meat, dairy products and fats there will unfortunately be a shortage for several years ahead."

Explaining the necessity for a continuance of the rationing after the war he said:

"You cannot take a whole lot of able young men off the farms, not only here but in Canada, the United States, Australia and New Zealand, deprive the land of fertilisers and transfer factory production from agricultural machinery to tanks and munitions, and expect farm production to be kept up.

"There is going to be this period of shortage, and don't let us draw back from saying it, because the important thing is to tell the people the truth.

"Until we see supplies in sufficient abundance to prevent there being queues before every shop, we must continue with the system of rationing that has stood us in good stead."

The man who brought the house down

RECOGNISE the man in picture below? You're wrong. His name is James — Lt. Clifton James, producer and chief performer in the Royal Army Pay Corps Drama and Variety Group, which gave its first London production at the Comedy Theatre on Sunday.

Lt. James finds his likeness to Gen. Montgomery embarrassing. "Everybody stares at me," he says.

★

When the Group gave a show at Leicester, the finale, a patriotic affair with Britannia as the central figure, did not go over very well.

So Lt. James donned a beret and a British warm and just walked on to the stage. The astonished audience clapped and cheered for five minutes.

★

Lt. James, who comes from Perth, Australia, has been a professional actor for 25 years. He made his first appearance with Fred Karno at a salary of 15s. a week.

"Bluebeard" moved 27

particular edition (March 14, 1944) the article stated: 'You're Wrong — It's Lieut. Clifton James.'

Once Lieutenant James had been traced it was seen that the similarity was remarkable. When he was dressed in the typical Monty outfit of the black beret with its twin badges, battledress and fleece-lined flying jacket, Colonel Lester knew the idea could be made to work.

Not so Lieutenant James. In his autobiography, *I was Monty's Double,* he describes the fears he felt in portraying Montgomery in front of officers and men who knew the General personally. Although he already had acting experience, Lieutenant

Above: **Lieutenant Clifton James reliving the past in 1958 with the re-enactment of his arrival at North Front, Gibraltar in 1944 in a scene for 'I was Monty's Double'.**

James felt his nerve was bound to let him down.

Gibraltar was chosen as the ideal spot to show the 'General' off as, not only was it certain that he would be seen by inquisitive Spaniards and, it was hoped, German eyes but it was the logical staging point for the General to use were he planning a Mediterranean operation. The main attempt at deception was therefore centred on Lieutenant James' visit to the Rock and, as his arrival at Gibraltar had been deliberately leaked, it was hoped that the suspected German agents among the Spanish workers on the airfield would play their part.

Reaching Northolt airfield in west London, Clifton James later wrote that 'my heart was pounding like a piston and for a moment I thought I should be unable to get out of the car and go through with it. Then something inside me gave way. The fear and the paralysis were coming from Lieutenant James. With a violent effort I pushed James aside and became Monty. From that moment the James side of me receded more and more into the background as the hours passed, until it became hardly more than a memory. If I had not been able to perform this psychological trick I should never have been able to do what I did.'

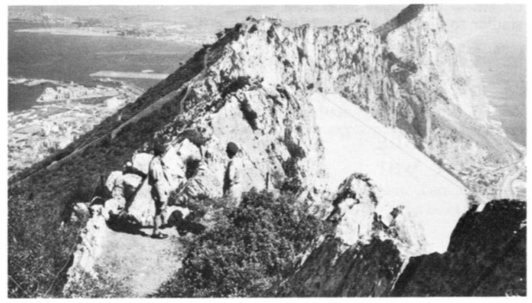
After a seven-hour flight, 'Monty' arrived at Gibraltar to be met by the Governor's ADC, Major Foley. Under the watchful eyes of a group of Spaniards, he was driven to Government House where the Governor, then General Sir Ralph Eastwood, was waiting. Being a personal friend of General Montgomery, General Eastwood was amazed at the accuracy of the impersonation.

The following morning, it was planned for Lieutenant James to take a stroll in the walled garden of the Convent where some labourers working on an alteration to the left wing would be sure to overhear his conversation with the Governor about some non-existent 'Plan 303'. It had also been arranged for two high-ranking Spaniards to call and 'coincidentally' meet the 'General' in the garden. The plan worked like clockwork and British agents in Madrid later confirmed that news of 'Montgomery's' arrival, and subsequent departure for Africa by air, had reached the Spanish capital within hours.

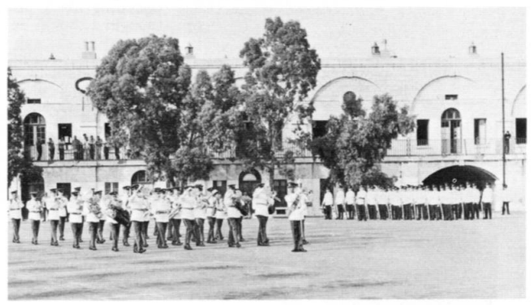
Later that day, the false Montgomery arrived at the aerodrome for his departure for Algiers. After inspecting the Guard of Honour, another misleading discussion took place close to the open canteen window between Lieutenant James and the Governor for the benefit of those it was hoped were listening and watching. The two Spaniards from the Convent 'meeting' were prominent in the crowd that had gathered to see the General off. Lieutenant James then spent a week touring North Africa, giving enemy agents every opportunity to spot him. When the tour was over, he remained quietly in Cairo until the invasion had been launched.

Above: **'Monty' salutes the Guard of Honour drawn up in front of the Convent at the junction of Main Street and Convent Place.**

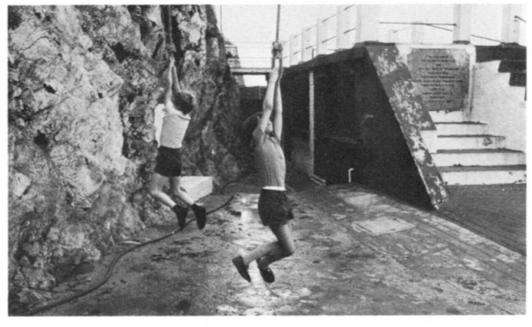
Above: **Those damn Yanks! Although there were few English women on the Rock, one American officer had soon made the acquaintance of Miss Ann Bolt of ENSA (IWM).** *Above:* **We were fortunate to find some pretty Gibraltarian girls on the corner of City Mill Lane and Main Street.**



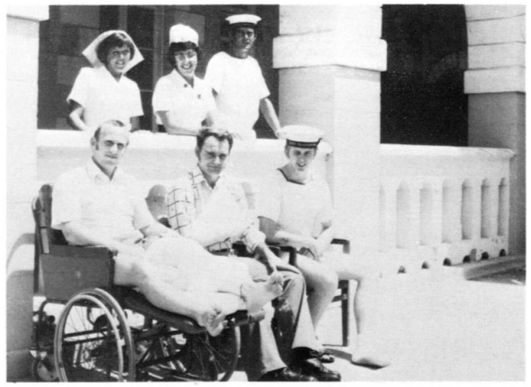
Left: **Padre Williamson celebrates Holy Communion beside Spyglass Battery, 1,300ft up in the heavens (IWM).** *Above:* **Two RAF officers took us to the same spot — note the water catchment sheeting still used to collect rain water.**



Left: **The traditional Ceremony of the Keys on Grand Casemates Square was still held throughout the war. This is the RAF on parade in 1942 (IWM).** *Above:* **Today the parade is a tourist attraction and is held five times a year.**



Left: **The Rock Apes are another great Gibraltar tradition. Here Captain J. Fitzgerald releases the ape reinforcements ordered by Winston Churchill (IWM)** *Above:* **The apes were away when we visited their den so we had to make do with two of our own!**



Above: **George and Beryl Formby entertaining at the Gibraltar Military Hospital in October 1943 (IWM).** *Right:* **Another Norman Cumming special — taken for us in August 1977 at what is now the Naval Hospital.**

Our week's visit to Gibraltar in May 1977 was all too short a period to follow up the many interesting relics to be seen and events which occurred there during the Second World War.

We investigated the spy story and were able to trace the two arresting officers still living in Gibraltar. Sergeant Ferro is now Superintendant of the Gibraltar Security Police and we are indebted to him for being able to visit many of the places which are not normally available for public inspection i.e. tunnels and guns etc. Inspector Adamson has now retired and kindly agreed to give us a rather rushed interview just an hour before we had to board our Trident to return to the UK. He lives only yards from where he arrested Cordon-Cuenca on Sir Herbert Miles promenade bordering Cathedral Square. The MI5 offices are now occupied by the Gibraltar Tourist Board who also provided every facility for our visit making us very welcome, even sent one of their representatives, Norman Cumming, to meet us at the airport. Norman was on the Rock during WWII and proved of inestimable value in locating many of the places in the wartime photographs we needed to match up. He also took several photographs for us after we left and we would like to record here our appreciation to him and all his colleagues at the Tourist Board.

The Governor of Gibraltar, His Excellency Marshall of the Royal Air Force Sir John Grandy, kindly gave us permission to take photographs in the Convent garden and even 'lent' us his ADC, Captain Anthony Barne, to stand in for the personalities in the wartime photographs.

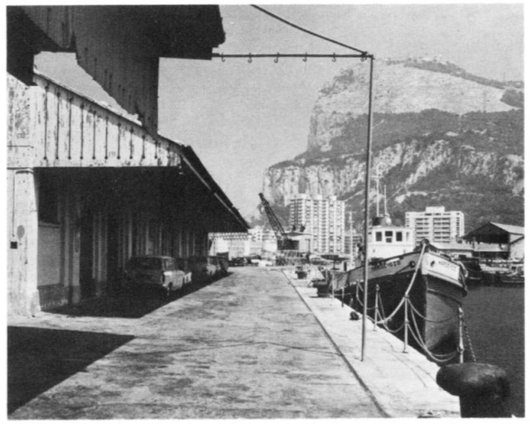
The title of 'the Convent' for Government House may seem unusual and Winston Churchill himself describes how the name could be misinterpreted in Volume IV of his history of the Second World War: 'Up till 1908 the Governor's residence was always called the Convent. In that year however King Edward VII's Private Secretary, Sir Henry Ponsonby, wrote to the Governor and told him that the King thought it advisable to change the name to 'Government House'. The reason given was that during the King's visit to Gibraltar in Sir George White's Governorship a paragraph had appeared in the English newspapers to the effect that the King had had luncheon at the Convent. Ten days afterwards His Majesty received a resolution passed by a Protestant association deploring the fact that the King should have thought it necessary not only to visit but even to have luncheon at a Roman Catholic institution. However, when King George VI visited North Africa in June 1943 he expressed the wish that the Governor's residence should be renamed the Convent, so the Convent it still is.'

We did make an approach to the Deputy Governor, Mr. Howard Davies, to see if it would be possible to visit the prison (still part of Moorish Castle) to photograph the graves of the executed spies, but permission was refused, possibly because of their nationality and the current dispute with Spain. The military prison at Windmill Hill has now been demolished to build married quarters.

We made a thorough search for any photographs taken of Lieutenant James during his wartime visit to Gibraltar but no photographs remain, if indeed they were taken, in the Gibraltar Chronicle archive (then under military censorship). Lady Grandy believed she had seen such a photograph, but was unable to trace it and nothing was found at the Garrison Library. We have therefore made use of stills from the film 'I was Monty's Double', made in 1958. Bearing in mind that Clifton James again played himself and General Montgomery in a virtual re-enactment of the events of 1944, filmed at the aerodrome and outside the Convent, we feel the pictures are valid to illustrate the story. We checked the stills of the scenes played inside Government House but these sequences had all been filmed on a set at Elstree.

Clifton James died in Worthing in May 1963, aged 65. In his book, he took great exception to the way his visit to Gibraltar was described by General Eisenhower's aide, Captain Harry Butcher, in his own book of his wartime experiences 'Three Years with Eisenhower': 'Thursday June 15, 1944.

Left: **Poor old General Browning has been well and truly censored out of this picture, taken on August 3, 1943 in the Convent garden, of Noel Coward with the Governor (IWM).** *Above:* **Captain Anthony Barne enjoys sitting in for the General.**



Left: **Some 1,400 Gibraltarian women and children evacuated in 1940 to Richmond, Wembley and Bayswater in England return home in April 1944. British Tommies help to carry their luggage (IWM).** *Above:* **The deserted Bland Line Quay 33 years later.**

Around SHAEF it is said that General Montgomery was lunching with Tedder and other British bigwigs when someone with tongue in cheek reported the latest bulletin of the progress of the matter of Monty's double, saying, "I hear that that fake Montgomery is swaggering about half drunk in Gibraltar, smoking mammoth cigars like a chimney." Monty, a non-smoking teetotaler, rose to the fly, glaring around angrily and ready to send disciplinary cables at once.'

However it would seem obvious from the above quotation that the remarks were said 'tongue in cheek' to the non-smoking, abstemious Montgomery were an American's way of poking fun at the General whereas Clifton James took them at face value.

The underground operation rooms used by General Eisenhower during Operation Torch are now appropriately marked with a plaque on the entrance door. As the rooms are still in use today, approved comparison photographs were kindly supplied to us by Captain Ivor Oddie of Fortress HQ.

The apes are part of the tradition of Gibraltar, it being said that as long as they remain, the Rock will be British. To maintain the legend, the apes have been under military care since the First World War when an 'Officer-in-Charge Rock Apes' was appointed in 1915. However by the Second World War, the number of apes had dwindled to seven and when Winston Churchill heard this, ever mindful of the ape legend, he took appropriate measures and the following telegram was sent to Gibraltar: 'The Prime Minister has expressed some concern as to the welfare of Barbary apes on Gibraltar about which he has heard disquieting rumours. He is most anxious that they should not be allowed to die out. I have received directions from the Prime Minister that the establishment of apes should be no less than 24 and that every effort should be made to achieve this number as soon as possible and maintaining it as a minimum thereafter.'

As a result, Barbary apes were caught and dispatched from North Africa by British Embassy officials and, by the end of the war, the numbers had increased to 16. On May 1, 1956, care of the apes passed from the Royal Artillery to the Gibraltar Defence Force (now the Gibraltar Regiment) and in 1959 'Gunner', the last survivor of the 'Churchill apes' brought from North Africa, died aged 17. Today the services still take their monkey business seriously and the birth and death of an ape is officially announced in Fortress Orders and each new baby's name is officially submitted to the Governor for approval.

Above: **VE day in Gibraltar. Enthusiastic crowds gather near the Alameda Gardens (IWM).** *Below:* **The assembly rooms in the background were later demolished to be replaced by the Queens cinema. This is now a car parking area called Grand Parade. The cable-car, built in 1964, runs from here to Signal Hill.**

The Italian Underwater attacks against Gibraltar

On June 10, 1940, Italy declared war on Britain and France; two months later, capitano di corvetta Prince Junio Valerio Borghese was appointed commander of the submarine *Scirè*. The *Scirè* was a 620-ton Mediterranean-type submarine then undergoing special modifications at the naval base of La Spezia on the north-western coast of Italy. It was being converted (together with its sister submarine *Gondar*) into an assault craft transport and three steel cylinders were being fitted onto the deck designed to carry two-man human torpedos (SLCs), nicknamed by the Italians 'maiali' (pigs) because they looked like a swimming pig and were about as easy to manoeuvre. These deck cylinders would be pressurised while transporting the torpedos close to their destination whereupon they would be flooded for the weapons to be removed underwater where they would be piloted under their own power by the two 'charioteers' sitting astride the torpedo to their targets. Each SLC had a detachable 300kg explosive warhead.

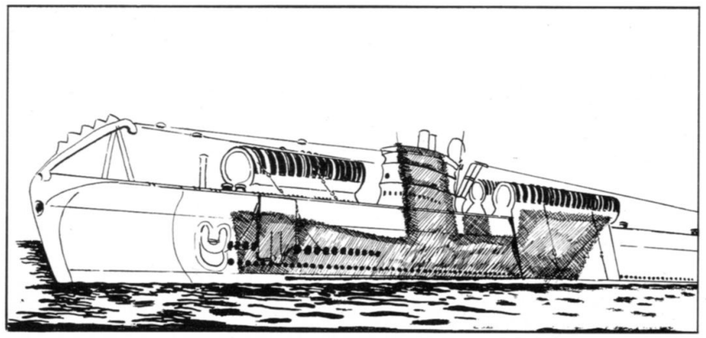
The *Scirè* itself had its gun removed and its conning tower cut down to reduce its height when surfaced and was camouflaged light green with the shape of a trawler sailing in the opposite direction outlined on it in a darker shade. Prince Borghese wrote that 'she was the strangest thing afloat . . . at a certain distance she looked neither like a submarine nor even like a ship; she might have been mistaken for a lighter or a barge.'

The first operation for the newly-converted submarines was a dual attack on the two British naval bases at the opposite ends of the Mediterranean — Alexandria and Gibraltar. While the *Gondar* went east to the first target, *Scirè* left La Spezia on September 24, 1940, to sail west to Gibraltar for operation B.G.1. On board were three SLCs with their crews with a fourth crew in reserve, the leading team being commanded by the renowned capitano del genio navale Teseo Tesei who was to lose his life during the attack on Valletta harbour, Malta, in July 1941 (*see After the Battle No. 10*). However on September 29, when the submarine was within 50 miles of her target, a recall signal was received as the Italian Supreme Naval Command had received information that Gibraltar harbour was empty.

The following month, another mission (B.G.2) was planned and the *Scirè* left La Spezia on October 21 bound for Gibraltar. At 1.30 a.m. on October 30 the submarine came to rest on the bottom of Algeciras Bay at a depth of 15 metres, 350 metres from the mouth of the river Guadarranque after a hazardous passage negotiating the underwater currents prevalent around the Straits. The Italian Naval Command in Rome signalled that two British battleships were at anchor in

Top: **Unprotected merchantmen in the roadstead in Algeciras Bay made tempting targets for the Italian underwater teams. The launch point for the** *Scire* **lay off the mouth of the Guadarranque River in the far distance, below the dip in the hills (IWM).** *Below:* **Dry land practise on an Italian 'maiali' — a two-man torpedo.**

Prince Junio Valerio Borghese.



The *Scire* after conversion showing the unusual camouflage adopted for her new role.

the harbour and, at 2.00 a.m., the three crews, astride their SLC torpedos set out for the attack. It was then that things started to go wrong and all three SLCs experienced malfunctions. The first torpedo was piloted by tenente di vascello Luigi Durand De la Penne with secondo capo palombaro Emilio Bianchi. On surfacing, the compass was found to be jammed and within 20 minutes the motor cut out after a small explosion. Unable to control his 'pig', it touched the sea bed at what de la Penne later estimated was 40 metres. The pressure squashed and flooded the SLC and, having tried to operate the exhaust pumps without success, the two crewmen abandoned the torpedo and swam towards the Spanish coast which they reached at 5.30 a.m. There they were met, as had been prearranged, by an Italian agent and were soon back in Italy.

The second SLC (capitano del genio navale Tesei and sergente palombaro Alcide Pedretti) avoided the searchlight-equipped patrol boats and reached the northern entrance to the harbour at about 5.00 a.m. However when Tesei attempted to use his breathing apparatus, he found it waterlogged and the reserve set unserviceable. Pedretti also had a malfunctioning breathing set and, without the means to enter the harbour submerged, Tesei decided to abandon the attack. After detaching the warhead, they reached Spain just after 7.00 a.m. whereupon they destroyed their diving suits and, turning the SLC around, sent it back out to sea. They also met with the Italian agent who was to enable them to get back to Italy.

The third team of tenente di vascello Gino Birindelli and secondo capo palombaro Damos Paccagnini was more successful although the speed and manœuverability of the SLC were seriously affected by water having got into the batteries. Nevertheless they managed to enter the harbour and approach within 70 metres of the *Barham*. There the torpedo stuck fast on the bottom and with Paccagnini's oxygen exhausted and his own running low, Birindelli decided to abandon the attempt to get closer to the battleship. He set the timer on the warhead and began to swim towards Spain. However after about 200 metres he began to suffer from cramp and was forced to climb ashore on to the Commercial Mole. After attempting to hide on a small ship he was spotted, questioned and then arrested. Paccagnini was also picked up at sea during the morning.

The explosion of the warhead during the morning of October 30 alerted the British authorities to the near-success of the Italian operation and the means used for carrying out the attack became apparent when Tesei's wandering SLC beached itself on the Spanish coast near the Rock. From then on, the regular dropping of explosive charges in the harbour and roadstead outside (which was used both to assemble convoys and for anchorage) began as a precautionary measure against further underwater attacks. As far as the Italians were concerned, the successful return of two of the crews meant that the reasons for the failure of the mission could be examined in detail and faults with the equipment rectified.

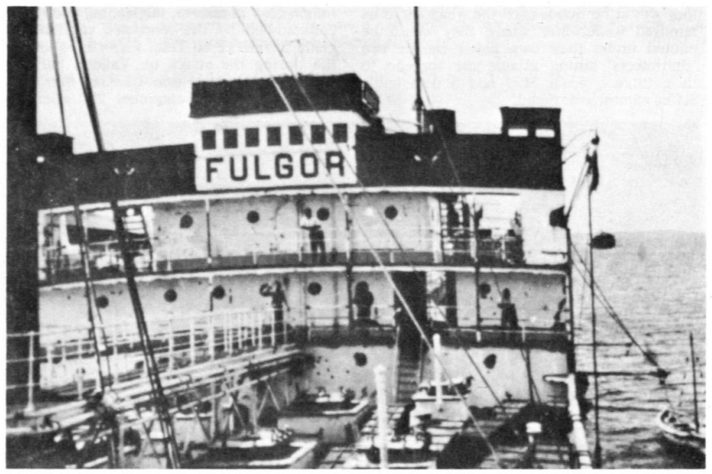
On March 15, 1941, the Italian special weapon unit was renamed the Tenth Light Flotilla and was split into two divisions, surface and underwater, Prince Borghese being appointed to command the latter. Also a new procedure was adopted to get the SLC crews to their destination more rested and therefore more capable of undertaking a successful attack. Where before they had travelled to their launch point cramped for days in the parent submarine, they were now flown to Cadiz (on the Spanish Atlantic coast) to rendezvous with the *Scirè*. There, moored in the port, the Italian tanker *Fulgor,* (which had been interned by the Spaniards since the beginning of the war) provided an ideal supply base for future operations. The tanker was quietly stocked with provisions and stores, both by the *Scirè* entering harbour unobserved at night and from crates of 'machinery' sent overland from Italy.

On the evening of May 24, the *Scirè* slipped silently into Cadiz harbour and came alongside the *Fulgor,* remaining partly submerged so as to remain as inconspicuous as possible. Before daybreak, she had taken the SLC crews on board and had left the port for operation B.G.3.

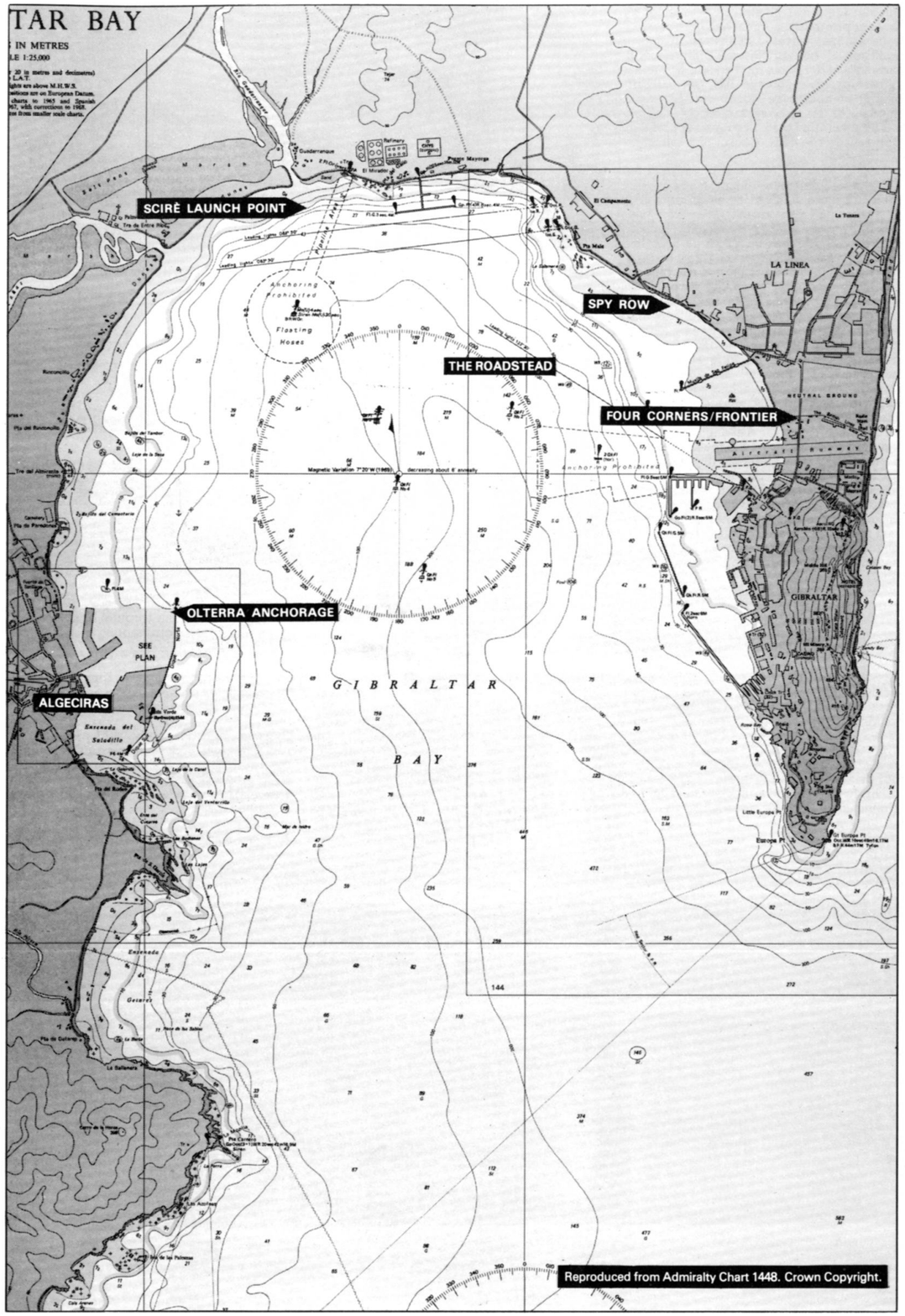
Although she had arrived outside the Bay of Algeciras by evening, because of the unfavourable current, Prince Borghese decided to delay their entry until the following day. At 10.30 p.m. on May 26, after a day of blind navigation, the *Scirè* surfaced inside the bay. Submerging again, fifty minutes later she came to rest at the previous launch point at the mouth of the Guadarranque river. Italian intelligence reported that the harbour was empty and that, instead, merchant ships in the roadstead should be attacked.

As the motor on one of the SLCs failed to start, the torpedo was sunk in deep water after detaching the warhead and attaching it to one of the remaining 'pigs'. The two crew members then joined the remaining two SLCs making three-man teams. However, although ships were approached by both crews, all the warheads were lost in deep water while trying to rope them to their targets. Two crewmen also experienced difficulty in breathing (one fainting in the process) but all six managed to reach the Spanish shore and meet up with the waiting agent. They were immediately driven to Seville where an aircraft was waiting to fly them to Italy. Although the operation had been another failure, Prince Borghese reported that it had been realistic training for the operators and the new delivery system via the *Fulgor* had been proved successful as had the evacuation of the crewmen from under the noses of the Spanish and British authorities. Also, as the latter were still ignorant of the attack, the possibility of a renewed attempt to take the defences by surprise still remained open.

It was not until the fourth *Scirè* mission to Gibraltar (B.G.4) in September that the Italian human torpedos were able to achieve their first kills. Using the same methods as in the May operation, the *Scirè* released the three SLCs off the mouth of the



The tanker *Fulgor* at Cadiz where she was used as a supply vessel for the *Scire*.



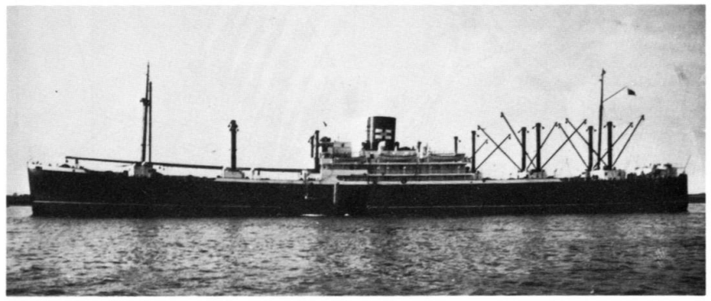
Guadarranque at 1.00 a.m. on September 20. An hour previously, a signal had been received from Italian Naval Intelligence listing a profusion of targets: 'Situation of vessels in harbour at 1200 hours on the 19th. At Mole I, battleship; at anchorage No. 27, aircraft-carrier; at anchorage No. 5, cruiser; at anchorage No. II, a second cruiser; in addition, seven tankers and three destroyers in harbour. One destroyer in dock. Convoy of 17 steamers in roadstead.'

The harbour defences had already started the nightly routine of depth charging, the noise and shock waves being heard and felt by all the submerged crews. The first SLC, commanded by tenente di vascello Amedeo Vesco, was detected by a patrol boat and forced to submerge and proceed at slow speed. When all chance had been lost of reaching the harbour in darkness, the 300kg warhead was attached to the 2,198-ton tanker *Fiona Shell*

Tenente di vascello Decio Catalano, also forced to detour during his run in by a patrol boat, attached his charge to the 10,893-ton armed merchantman *Durham* at anchor in the roadstead. Tenente di vascello Licio Visintini and sottocapo palombaro Giovanni Magro in the third SLC were the most successful of all, penetrating the harbour through the northern entrance. Although their target had been a cruiser moored at the southern end of the harbour, frequent depth-charging nearby led Visintini to choose a loaded tanker, the 8,145-ton *Denbydale* lying alongside the detached mole. After attaching his warhead and setting the fuses, Visintini left the harbour and, avoiding the patrol boats, set course for the Spanish beach where he made a safe landing with his crewman after sinking his SLC.

All three crews met with their Italian contact, capitano di corvetta Pierleoni, who had the cover of a consular appointment in Barcelona, and waited in hiding for the explosions. Around 9.00 a.m., one after another, the three charges exploded punctuated by the self-destructor charges of the sunken SLCs. As Pierleoni was leading the crews from the beach, they were stopped by a Spanish patrol but, gambling on Spanish support, he admitted that the men had been attacking the British. The party was taken to La Linea and from thence allowed to proceed to Italy, via Seville.

This first successful attack on Gibraltar had eliminated 20,000 tons of shipping. The *Fiona Shell* had been sunk while the *Denbydale* remained a dirty hulk, unfit for further service. The *Durham* was brought into the harbour before being towed to England a year later for repairs. Having proved that it was possible to breach the British harbour defences, Licio Visintini was the hero and all the crewmen received the Silver Medal for gallantry in war. The entire crew of the *Scirè* were decorated and Prince Borghese promoted to commandante. King Emmanuel travelled to the training base at San Rossore to personally meet and congratulate the group.



The *Durham*, the second victim of the Italian Navy, damaged on September 20, 1941.

The award of decorations to the crew of the *Scire* at La Spezia on April 2, 1942. The submarine, seen on the left of the picture, was sunk by the British torpedo boat *Islay* off Haifa on August 10, 1942 on her first operation after commandante Borghese relinquished command.

Gibraltar harbour, July 1977. Tenente di vascello Licio Visintini penetrated through the northern entrance on September 20, 1941 and crippled the *Denbydale* which was berthed where the tanker lies on the detached mole.

Although the attack had been a complete success, it was the only achievement to be shown for two years effort and a comprehensive review of the four *Scirè* missions was begun. It was realised that out of the 24 crewmen who had been launched in the Bay of Algeciras, 22 had returned safely to Italy. If, it was questioned, it had been relatively easy for the Gibraltar operators to reach the Spanish coast after each operation, might it not be equally easy for them to reach Gibraltar starting out from the coast? The parent submarine, it was argued, could only execute a limited number of missions; could only take three craft with it on each and, because darkness was necessary to carry out the attacks, this precluded approach by submarine from late Spring to the Autumn. Also, as there were now dozens of merchant ships anchored every day on the roadstead, this made entry into the fortified harbour unnecessary.

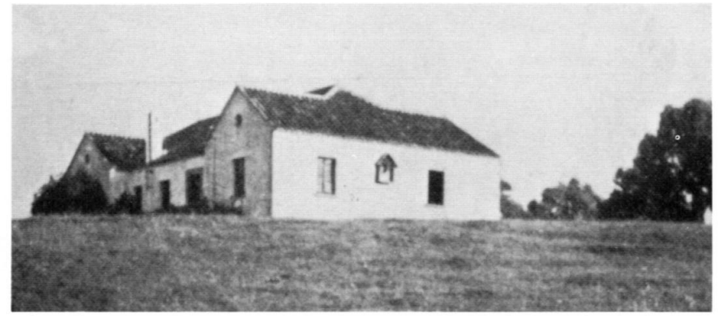
It was proposed, therefore, to make the next attack direct from the Spanish beach using frogmen swimmers carrying explosive charges. An ideal base had already been established by installing the Spanish wife of one of the members of the Tenth Light Flotilla in a seaside house — the Villa Carmela — situated just 4,000 yards from Gibraltar. As Allied shipping anchored as close as 500-1,000 yards from the beach, the villa was a perfect location.

The first of the new-style missions (codenamed G.S.1) was planned for July 1942 and a twelve-man team, the 'Gamma' or swimming limpeteer assault group, was smuggled into Spain using various routes. On the night of the 13th/14th, they left the villa, each equipped with three 2kg charges, crossed the garden and descended to the beach. Their faces were hidden with seaweed-covered netting to deceive watchers on board the ships if they were spotted approaching the vessels. The small charges obviously could not do as much damage as those on the SLCs and several bombs were swept away on the current and exploded on the surface; nevertheless four ships were crippled in the attack, the *Meta*, the *Shuna*, the *Empire Snipe* and the *Baron Douglas* totalling 9,546 tons. As luck would have it, the Spanish patrols were unusually vigilant and seven of the returning swimmers were arrested on reaching dry land although all were later smuggled out of Spain via the *Fulgor* at Cadiz.

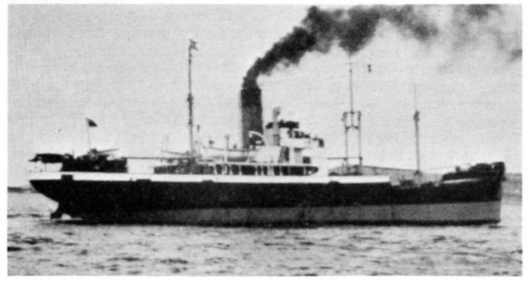
While the principle of attack from the Spanish coast had been proved successful, it would be eminently preferable if the risk of subsequent arrest and possible internment could be avoided. During the initial search for the Villa Carmela in 1940, the existence of a partly-sunken Italian tanker near Algeciras had been noted as being of possible use in the future. The 4,995-ton *Olterra*, which belonged to a Genoese shipowner, A. Zanchi, happened to be in the roadstead when war was declared by Italy and, in accordance with orders received by radio, the skipper scuttled her in shallow water to prevent her falling into British hands. Prince Borghese had contacted the owner without stating the real reason for his interest, the latter immediately agreeing to instruct a Spanish salvage company to raise the vessel. Using the excuse that he 'intended to refit his ship for handing over to a Spanish company which had made him a favourable offer', the owner had had the vessel moored to the end of the outer pier in Algeciras harbour. There she had remained under Spanish guard for nearly two years — now she was to be a godsend to the Tenth Light Flotilla.

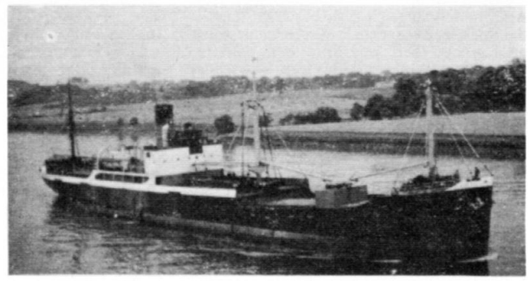
It was tenente di vascello Visintini who suggested that she could be converted into an excellent base for the operations against Gibraltar only six miles away.

Visintini's plan was to set up a fully-equipped workshop in the hold of the *Olterra* to assemble and test human torpedos, including a generator for charging the batteries of the SLCs. Under Visintini's direction, the Italians cut a 25-foot-long section in the steel bulkhead separating the bow compartment from a small cargo hold and hinged it like a coffee-stall front. Then, telling the Spaniards they must clean the trimming tanks, they pumped out the forward tanks till the bows rose high out of the water. Early one morning, with the brandy-laden security guard sound asleep in the galley, a four-foot door was cut in the side of the ship, opening into the bow compartment six feet below the normal water line. It was hinged to open inwards and so

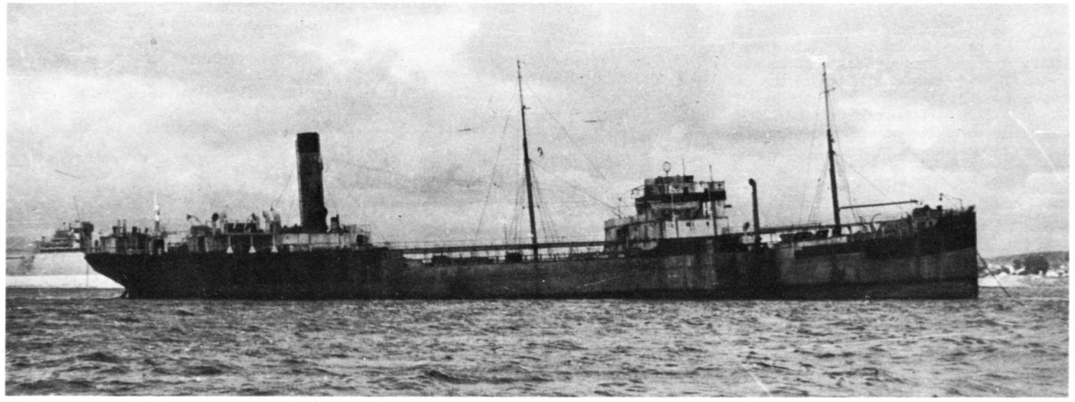


Above: **The Villa Carmela on the Spanish shore, just over two miles from Gibraltar, was the first stationary base selected by the Tenth Light Flotilla.** *Below:* **The villa had been rented by Signora Conchita Ramogrino on behalf of the Italian swimmers. Unfortunately, in spite of its closeness to Gibraltar, the Spanish border closure precluded a visit.**





Casualties of the limpeteers from the Villa Carmela — *(left)* the *Meta* and *(right)* the *Shuna*, both 1,575 tons (R. J. Scott and T. Rayner).



Above: **Twentieth-century Trojan horse. The *Olterra* at anchor and *(below)* a close up of the bows showing the underwater hatch (F. W. Goldsworthy).**

neatly done that only a diver could have detected it. When the ship resumed her normal trim, the bow compartment was flooded but the hold was still dry. A secret door was cut from the *Olterra's* crew's quarters direct into the hold. Work went on at night and by day the coffee-stall front was lowered and the cracks round it filled with putty. A surprise search would have shown nothing. Human torpedoes would be slung on pulleys in the bow compartment and, when the night came for an attack, these would be lowered into the water to pass out of the ship through the door in the side, do their job and return undetected to their secret base. The original skipper and chief engineer of the *Olterra* were retained but the remainder of the merchant crew were replaced by members of the Tenth Flotilla under the guise of workmen repairing the ship.

The next problem was to get supplies and torpedos from Italy to the ship. There could be no question of confiding in the Spaniards as secrecy was vital. A human torpedo, minus the tail assembly and the warhead, was 14-feet long and not an easy thing to smuggle. Had the Spaniards really been inquisitive about the 16-foot-long cases of 'boiler tubes' sent by lorry from La Spezia through France, they would have found just one foot of boiler tubing at each end and 14-foot of human torpedo in between. Other cases were labelled 'machinery' and the Spanish border guards did, in fact, put a dip stick into the five-foot high 'petrol drums' consigned to the Italian consulate. They showed petrol quite clearly, for the dip hole was carefully arranged to by-pass the warheads with their 300kg explosive charges. Capitano di corvetta Pierleoni's customs 'contact man' made sure that nobody looked carefully enough over the lorries to find the secret compartments in which the torpedo operators and mechanics crossed the frontier.

Although the Italians were unaware of it, British Intelligence on the Rock had already made it their business to keep a close watch on the *Olterra* since she had been refloated and a file had been opened on the ship. The British Army observation post, over 1000ft high on the Rock, had orders to keep a constant watch on her and there was little their powerful telescopes missed during daytime. One school of thought believed that, immobile in Algeciras, she must be of some potential use to some authority otherwise the Spaniards would have commandeered her as part of their own depleted merchant fleet. Others believed that the *Olterra* was so old and unseaworthy that she could only be of use as a stationery observation post but, as there was no signs of activity on board, the theory was dubious.

When the attacks on British shipping had begun, the British ambassador in Madrid, Sir Samuel Hoare, protested to the Spanish authorities that these indicated evidence of its breach of neutrality or, at the very least, the connivance of Spain. The reports received of men being driven from the shore of the bay, a prohibited military zone, implied Spanish complicity in the whole affair.

When in the middle of 1942 activity was seen around the *Olterra* for the first time, the whole situation changed dramatically. A Spitfire photographic sortie was flown over Algeciras, high enough to avoid suspicions being aroused and, although nothing untoward was revealed on the prints, a follow-up flight was ordered for the next day. Although the ship still appeared to be inactive, a few frames showed a swimming pool in the garden of a house on the outskirts of Algeciras. There a group of men were seen to be gathered around a cigar-shaped object. Photographs taken the following day showed the object actually in the pool but still no sign of life on the *Olterra*. A discreet watch was kept on the ship throughout the night and the next morning the observer reported equipment including a long object being taken aboard. Another photographic sortie revealed the object no longer at the swimming pool, giving weight to the evidence that it had been loaded on board the *Olterra.* A report was then received from a British informant at the Franco-Spanish border who reported the crossing of an Italian military lorry carrying a large object covered by a tarpaulin, the vehicle being allowed to pass freely by the Spanish guards.

The Royal Navy at Gibraltar had likewise not been idle. At irregular intervals searchlights swept the harbour approaches; there were harbour and bay patrols and, around the entrance gate, small explosive charges, sufficient to kill or stun any person underwater, were thrown into the water every few minutes of the night. The loud metallic clang these explosions made on the hulls of anchored troopships started many a colourful mess deck 'buzz' about 'big submarine attacks in the Straits.' Also many of the merchant ships were now accommodated within the protection of the harbour. The most significant defence measure of all was the creation of the Gibraltar naval diving party, whose members showed no less devotion, endurance and courage than their Italian adversaries. Leading the party were Lieutenant 'William' Bailey, RNVR, and Lieutenant Lionel 'Buster' Crabb, two mine-disposal officers, whose duty it was to search the bottoms of ships arriving from Spanish ports as well as making frequent night examinations of vessels anchored in the bay.

While the conversion work was secretly continuing on the *Olterra,* another operation (G.S.2) was planned from the Villa Carmela for the night of September 14/15 but, as a result of increased British vigilance, the three Italian swimmers were only able to sink one ship that night, the *Ravens Point.*

Three months later, the *Olterra* was ready to send forth her first crews and December 6 was fixed for the initial operation (B.G.5). Visintini could hardly believe his luck when, on the evening of the 5th, the imposing British naval squadron of Force H arrived at Gibraltar. It consisted of the battleships *Nelson* and *Renown,* the aircraft carriers *Furious* and *Formidable* together with numerous smaller ships. Faced with such tempting targets, tenente di vascello Visintini postponed the launching of his offensive by one day — to thoroughly re-check all three SLCs for this heaven-sent opportunity.

He planned to lead the attack on the *Nelson* himself; the *Formidable* was assigned to guardiamarina Girolamo Manisco while sotto-tenente armi navale Vittorio Cella would go for the *Furious*. That evening, as the crews set out from the *Olterra* via the underwater hatch for their debut on the far side of the bay, the British searchlights played constantly back and forth and explosive charges were regularly dropped in the water every three minutes. Nets barred the approach to the harbour (barbed-wire knife rests had been also sunk on the seabed at the harbour gates) and guns covered both entrances. Undeterred, Visintini pressed on only to be caught by the detonation of one of the explosive charges as he closed the harbour. Both he and his crewman, sergente palombaro Giovanni Magro, were killed outright.

Manisco's SLC was picked up by a searchlight as it approached the detached mole bringing down artillery and machine gun fire. Forced to abandon their attack, Manisco sank the torpedo and swam to an American steamer close by where he and his crewman, sottocapo Dino Varini, were captured.

After the defences were alerted, Cella in the third SLC stood no chance and, turning about, pursued by numerous patrol boats, succeeded in reaching the safety of the *Olterra.* There he discovered that his team mate, sergente Salvatore Leone, was missing having disappeared from his rear seat somewhere in the bay.

Within minutes, the operation had been routed with disastrous consequences for the Italian crews — two men had been captured and three were missing, presumed dead. Leone was never found but, two weeks later, the bodies of Visintini and Magro were recovered from the harbour. They were buried at sea with full military honours. A wreath was cast on the water by Lieutenants Bailey and Crabb who had been on duty that night, also risking the danger of the underwater shock waves from the explosions, to inspect the hulls of the ships in the harbour. Lieutenant Frank Goldsworthy, a British Naval Intelligence officer at Gibraltar, later recorded that the gesture by the British divers was much misunderstood and criticised by others on the Rock. The official British communique stated: 'At 2.15 a.m. on the 8th December, three Italian assault craft, carrying two men each, tried to penetrate the harbour at Gibraltar. One was seen by a sentry, caught by a searchlight, fired on and sunk by artillery and depth-charges. The crew was picked up by a merchant vessel moored near the Detached Mole and, though the two men were circumspect in what they said, it is believed that they were brought from Italy by the submarine *Ambra.* A second pair of men entered the harbour but perished as a result of depth-charge attack, while it seems that the third pair were killed before they could reach the harbour.'

Above: **One of the leaders of the Royal Navy Underwater Working Party, Lieutenant 'Buster' Crabb, who went missing in 1955 after inspecting a Russian warship in Portsmouth harbour (IWM).**

Undeterred by the loss of five operators, the crews on the *Olterra* were reconstituted — replacements arrived and, during the next few months, more dismantled torpedos were sent to the ship under the guise of spare parts. In future it was decided to concentrate on merchant shipping in the roadstead which presented more accessable targets although, even there, the Royal Navy were constructing underwater net defences to run all round the anchorage in the bay.

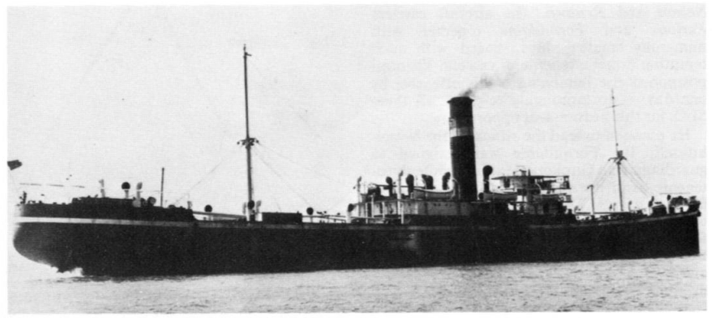
On May 8, 1943, led by the new commander, capitano di corvetta Ernesto Notari, three SLCs were launched for operation B.G.6, this time each carrying a double warhead, the crews being assigned two targets. Sottotenente delle armi navale Vittorio Cella, sole survivor of the abortive December raid, piloted the second SLC and tenente del genio navale Camillo Tadini the third torpedo. The successful attack resulted in the crippling of the US Liberty ship, the *Pat Harrison* and the merchantman *Mahsud* and the sinking of the *Camerata,* all the crews returning safely to the *Olterra.* Italian agents planted divers' equipment on the Spanish shore to mislead enemy intelligence as to the provenance of the attack.

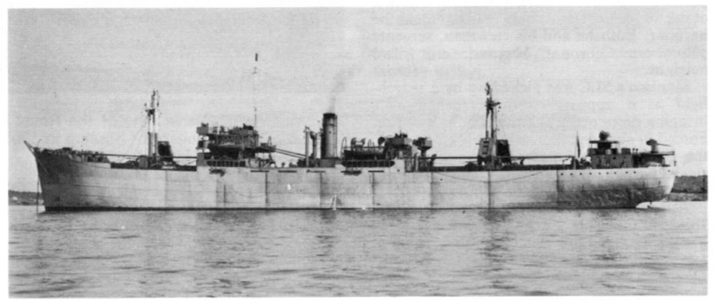
Below: **Men of the unit examine the hull of a ship at Gibraltar. Diving only in swimming trunks, breathing apparatus and goggles, the men received extra pay and a tot of rum after every second dive (IWM).**

The last underwater Italian operation against Gibraltar (B.G.7) took place on the night of August 3/4 using the same three crews. This time a new British defensive measure was encountered — barbed wire hanging from the sides of the ships, invisible in the darkness. Nevertheless, the teams managed to attach warheads to three vessels, the 7,176-ton US Liberty ship *Harrison Gray Otis,* the Norwegian tanker *Thorshovdi* and the British merchantman *Stanridge.* Capitano di corvetta Notari's crewman, sottocapo palombaro Andrea Gianoli, was inadvertently left behind, and was hauled aboard the *Harrison Gray Otis* before the charge exploded. The Italian had just been transferred to a patrolling launch, which had brought the Duty Diver, Petty Officer Bell, to search the ship, when the warhead detonated on the far side of the ship. The explosion blew a huge hole in the engine room and a piece of metal tore completely through the ship and out the starboard side wounding the seaman guarding Gianoli.

Thus ended the last Italian attempt to sink Allied shipping at Gibraltar; just over a month later the armistice was signed with the Allies.

Lieutenant Goldsworthy, the British Naval Intelligence officer mentioned earlier, later recorded that 'the possibility that the Olterra was associated with the human torpedo attacks was not overlooked but there was never a scrap of evidence to disclose her real role or justify any drastic diplomatic action.' He wrote that 'during the repatriation of Italian civilians from East Africa, an Italian tanker under safe conduct was sunk by a British

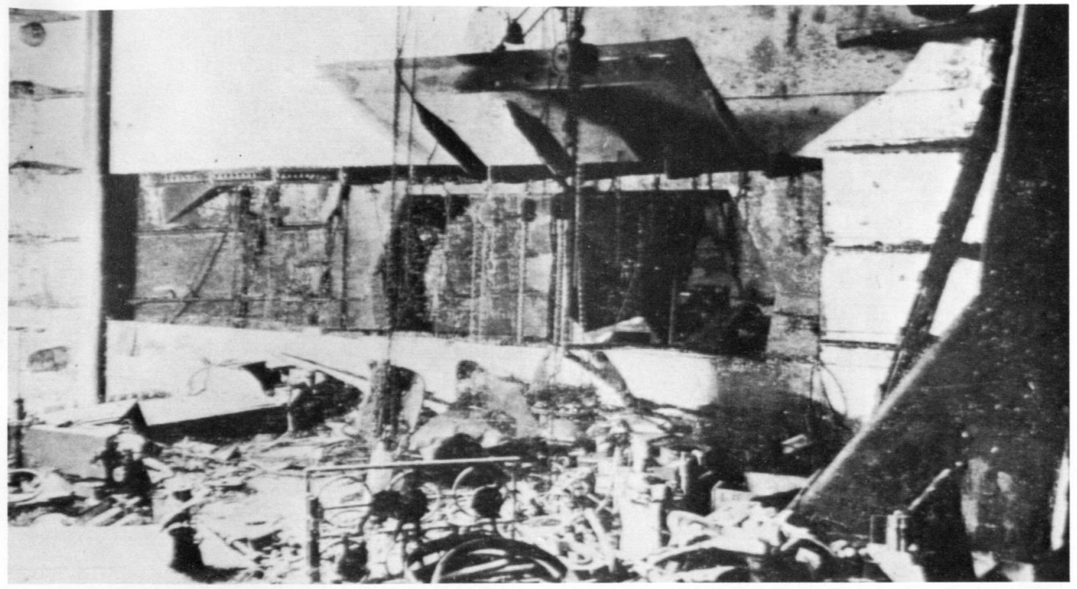




Above: **The 7,540-ton *Mahsud* damaged on May 8, 1943 and *(below)* the *Stanridge*, the last merchantman successfully attacked at Gibraltar during the Second World War.**

SHIPPING SUNK OR DISABLED BY THE ITALIAN NAVY AT GIBRALTAR

Date Attacked	Ship	Tonnage	Type	Operators	Port	Constructed	Lloyds	Type of Attack	Remarks
September 20, 1941	FIONA SHELL	2198	Storage hulk	Colonial Sugar Refining Co. Ltd.	Sydney N.S.W. British	1933 Caledon S B & E Co. Ltd. Dundee	23801	Operation B.G.4 Fourth Mission of the *Scire*	Sunk
	DURHAM	10893	Motor Vessel	Federal Steam Nav. Co. Ltd.	London British	1934 Workman Clark Ltd. (1928) Belfast	22752		Damaged
	DENBYDALE	8145	Naval Tanker	The Admiralty	Glasgow British	1941 Blythwood S.B. Co. Ltd.	22420		Immobilised
July 14, 1942	META	1575	Steamship	Clydesdale Ship Owners Ltd. (Glen & Co. Ltd. Mgrs.)	Glasgow British	1930 Burntisland S & B Co. Ltd. Burntisland	28543	Operation G.S.1 Swimmers from Villa Carmela	
	SHUNA	1575	Steamship	Scottish Nav. Co. Ltd. Glen & Co. Ltd. Mgrs.)	Glasgow British	1937 Burntisland S & B Co. Ltd.	32086		Damaged
	EMPIRE SNIPE (ex Texas Rangers-40) (ex Lake Gaither-32)	2497	Steamship	Ministry of War Transport (Sir W. R. Smith & Sons Ltd. Mgrs.)	London British	1919 Manitowoc S.B. Co. Manitowoc	73415		Damaged 120 degrees 1½ m from North Mole lt.
	BARON DOUGLAS	3899	Steamship	Kelvin Shipping Co. Ltd. (H. Hogarth & Sons Mgrs.)	Ardrossan British	1932 Lithgows Ltd. Port Glasgow	70088		Damaged 343 degrees 14 cables from North Mole lt.
September 15, 1942	RAVENS POINT	1787	Steamship	MacAndrews & Co. Ltd.	Liverpool British	1918 H. & C. Grayson Ltd. Garston.	81033	Operation G.S.2 Swimmers from Villa Carmela	Damaged 330 degrees 7 cables from North Mole lt.
May 8, 1943	PAT HARRISON	7191	US Liberty	United States War Shipping Administration	New Orleans U.S.A.	1942 Delta S.B. Co. Inc. New Orleans L.A.	31036	Operation B.G.6 Second operation from *Olterra*	
	MAHSUD	7540	Steamship	Thos. & Jno. Brocklebank, Ltd. Cunard Buildings Liverpool 3.	Liverpool British	1917 Russell & Co. Port Glasgow	77996		Damaged
	CAMERATA	4875	Steamship	La Tunisienne Stm. Navigation Co. Ltd. (F. C. Strick & Co. Ltd. Mgrs.)	Swansea British	1931 J. Readhead & Sons Ltd.	71000		Sunk
August 4, 1943	HARRISON GRAY OTIS	7176	US Liberty	United States War Shipping Administration	Los Angeles U.S.A.	1943 California S.B. Corp. Los Angeles Cal. U.S.A.	25465	Operation B.G.7 From *Olterra*	
	THORSHOVDI	9944	Whaler Oil Factory Ship	A. SOdd (A/S Thor Dahl, Mgrs.)	Sandefjord Norwegian W.B.	1937 Deutche Werft A.G. Bet Finkenwrder Hamburg	83618		
	STANRIDGE	5975	Steamship	Stanhope SS Co. Ltd. (J. A. Billmeir & Co. Ltd. Mgrs.)	London British	1943 W. Pickersgill & Sons Ltd. Sunderland	33704		Damaged



Above: **The interior of the hold of the *Olterra* when boarded by the Royal Navy showing the Spanish attempts to destroy the evidence of her illegal use (F. W. Goldsworthy).** *Below:* **Anti-submarine netting used in protecting shipping at Gibraltar now stored in a chamber beside the Great North Road tunnel.**

submarine. After protracted diplomatic negotiations the Allies agreed, in compensation, to release to the Italians the second of the two Italian tankers blockaded in Algeciras. She was smaller than the Olterra and in such poor shape that she broke down twice on the east coast of Spain and was still at Valencia when the Armistice was signed. From the Rock we watched her steam out, escorted by the patrols which had held her captive so long. How much cheaper it would have been for the Allies if they had released both tankers that day!'

'After the armistice,' Lieutenant Goldsworthy explains, 'one of the Italians confessed the whole Olterra plot to the local Spanish Governor. The Governor was terrified that Allied protests would be visited on his head, and demanded the destruction of the evidence before the ship was surrendered.

'The task was hopeless. Without any trained personnel the Italian consular officials tried in vain to thrust the torpedoes out through the side of the ship. When we boarded the ship as she was towed into the bay we found, among the shambles below decks, two torpedoes broken up by their own scuttling charges and one still serviceable on its slings.

'Christened 'Emily' for no good reason, it became the treasured experimental plaything of Lieutenant-Commander Crabb. On her fifteenth outing, 'Emily' became temperamental and dived into deep water from which Crabb and his companion emerged only with some difficulty, and from which all the ponderings of a court of inquiry could not recover Emily.'

The Olterra, which had ironically been built by Palmers and Co. Ltd. at Newcastle in 1913, became, for a brief period, a showpiece for visiting admirals, then went back to her humble duties as a merchant ship. After several more years service, she arrived at Savona, Italy, on January 9, 1961 to be broken up. Frank Goldsworthy, now a reporter on the Daily Express, sadly reflected that 'it seemed an unworthy fate for the ship which came nearer than any other in naval history to being a floating Trojan Horse.' We appreciate Mr. Goldsworthy kindly making available from his own collection, several photographs reproduced here which include the only picture we have been able to trace showing the underwater hatch in the Olterra.

Lieutenant-Commander Crabb continued in the Royal Navy and disappeared on October 12, 1955 in Portsmouth harbour during the underwater inspection of a Russian warship which was visiting Britain. The affair has never been officially acknowledged but it is believed he was captured by the Russians and that a headless body in a diving suit, recovered from the sea some weeks later, was his.

Prince Valerio Borghese, who did not believe in changing sides during a war, continued to work after the armistice training Germans in underwater sabotage methods. He was known as the Black Prince in Italy after the war and he published his personal account of the underwater campaign against the British called 'Decima Flottiglia Mas', translated and published in English in 1952 as 'Sea Devils'. In it he claims a total of 82.967 tons of shipping sunk at Gibraltar, but, when we checked each ship with Lloyds Register, we found the true tonnage to be 68,270.

On December 8, 1970, a massive coup d'etat to overthrow the Italian government was discovered — its alleged leader Prince Borghese. The group briefly occupied the armoury of the Ministry of the Interior while 200 armed men prepared to enter the headquarters of the Italian radio and television services. Others were prepared to kidnap the national police chief and poison Rome's water supply with radio-active waste. After years of investigation, 77 Italians were accused of armed insurrection and political conspiracy although only 28 defendents were brought to trial on May 30, 1977. Many of those responsible escaped arrest and went into hiding including Prince Borghese who left Italy moments before police arrived. Remaining in exile in Spain, he died in 1974. His funeral was held in the church of Santa Mario Maggiore in Rome, his remains being given the Fascist salute by many of the crowd as they were laid to rest in the family vault beside the tomb of Pope Paul V.